The Feasibility of Introducing a Value-Added Tax in Pakistan

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A thesis submitted in fulfilment of the requirements
for the Degree of Doctor of Philosophy
at the Australian National University

July 1995

To the memory of my father Amir Ahmad
who died during the writing of this thesis

Declaration

Except where otherwise indicated, this thesis is my own work

Muhammad Aslam Khan
July 1995

Acknowledgments

I have accumulated a long list of debts over the years of my research; intellectual, institutional and personal. A number of people and agencies in New Zealand, the Philippines and Pakistan helped me in the completion of this study. I am grateful to all of them and, particularly to those who made themselves available for focus group discussions and in-depth interviews. My appreciation is also for the National Planning Commission, Government of Pakistan in nominating me for a Ph.D. course, the Australian Agency for International Development (AusAID) for financing my study in Australia and the Australian National University for offering me a place as a candidate in the Development Administration program.

At the Australian National University, National Centre for Development Studies I am especially indebted to my supervisor Professor Ron Duncan, and advisers Dr Peter Larmour, Dr Christine Fletcher, Mr Brian Brogan, Professor David Corbett and Dr Michael Hess. Their encouragement and perceptive criticism set this study on its proper course. The high degree of cooperation, I received from these people helped to make my research pleasurable. I owe my deepest gratitude to my supervisor Professor Ron Duncan for his keen interest in my research work. I am grateful for his interest, encouragement and guidance.

In New Zealand, I am indebted to the personnel of the Internal Revenue Department and Price Waterhouse. Substantial support was provided by the New Zealand Internal Revenue Department. I am particularly thankful to Internal Revenue Department Commissioner David Henry, Deputy Commissioners Graham Holland and Bob Maleny and their staff, and Mr Jeffrrey Toad, Senior Partner of Price Waterhouse.

In the Philippines, the Ministry of Finance, Bureau of Internal Revenue, Philippine Chamber of Commerce and Industry, the Philippine Institute of Development Studies and the Asian Development Bank personnel were particularly

helpful. Special gratitude must go to Mr Ernest Leung, Secretary Finance; Professor Angel Q. Yoingco and Ms Milwida M. Guevara of the Ministry of Finance; Ms Liwayway Vinzons, Commissioner Bureau of Internal Revenue and her staff; Dr Rosario Manasan at the Philippine Institute of Development Studies; Ms Florecita P. Flores, President, Philippines Chamber of Commerce and Industry; and Dr Satesh S. Jha, Chief Economist, Asian Development Bank.

In Pakistan, my research has substantially benefited from interaction with tax policy makers, legislators, civil servants, professionals, the business community and administrators. I am particularly indebted to Professor Kurshid Ahmad, Senator and Director of the Institute of Policy Studies; Mr Munawar Ahmad Khan, Ex-Sindh Government Provincial Minister and President of Sukkur Chamber of Commerce and Industry; Ms Sabhia Khanum, Ex-Provincial Member of the NWFP Legislative Assembly; Mr A. G. N. Kazi, Ex-Deputy Chairman of Planning Commission and Mr Saeed Qureshi, Deputy Chairman Planning Commission; Dr Akhtar Hassan Khan, Chairman, Tariff Commission; Professor Syed Nawab Hyder Naqvi, Director, Pakistan Institute of Development Economics; Mr Alvi Abdul Rahim, Member (Sales Tax), Central Board of Revenue; Dr Meekal Aziz Ahmad, International Monetary Fund; Dr Arshad Zaman, Ex-Chief Economist, Planning Commission; and Mr Asif Khan Wardak, Deputy Director General, Statistics Division.

In Australia, I am particularly indebted to the Commonwealth Treasury; the Commonwealth Grants Commission; the Australian Statistical Bureau; and academic members at the National Centre for Development Studies at the Australian National University. Mr C. R. Rye, Chairman and Mr R. J. Searle, Secretary Commonwealth Grants Commission; Mr Terry O'Brien, Assistant Secretary, Commonwealth Treasury; and Ms Dot Russell, Director, Australian Bureau of Statistics were particularly helpful in advising me on various issues of my study. In the process of collection of information, I also approached about forty countries' Finance Ministries and Finance Departments with the value-added tax system, directly or through their High Commissions and Embassies, including the European Communities Commission and the Secretariat of the Organisation for Economic Cooperation and Development. In

almost all cases, these agencies provided me with relevant information. It is difficult to acknowledge each of them, but I am most thankful for their support.

Many other people were very supportive during my study at the Australian National University, especially Syed Shaukat Kazmi, Dr Ashfaq Ahmad Khan, Ms Lacanlalay Florinda, Mr Basilio Apolonio, Ms Padungcharoen Walailak, Mr Ghulam Muhammad Arif, Mr Arshad Mehmood, Syed Mazheruddin, Mr Muhammad Nazim Saleem, Mr Ali Raza Khan, Mr Moin Yousfi, Mr Muhammad Saleem, Mr Riaz Ahmad Khan, Mr Jaweed Amir and Syed Irtiqa Ahmed Zaidi. They have assisted me in many ways. I wish to thank all of them for their assistance and friendship.

I would also express my sincere gratitude to Ms Anne Bartlett for her efforts in whipping this manuscript into shape. My thanks also go to Ms Maree Tait, who helped me to edit the thesis. Finally, I would like to mention my wife Qaisar Aslam, and daughters Asma Aslam, Uzma Aslam, Ghazal Aslam, and Wajeeha Aslam who, in my long absence from Pakistan, have achieved excellence in their studies. A measure of their love and devotion to my study is reflected on every page. I am thankful for their patience and support.

Abstract

The most notable feature of public finance in Pakistan has been the emergence of large fiscal deficits since the early 1980s. Government efforts to improve the fiscal situation have fallen prey to domestic political considerations, budgetary policies and their complex administration. Fiscal deficits have been primarily due to large increases in government non-development expenditure and the lack of comprehensive revenue generating efforts. Such fiscal deficits are not sustainable, have adverse, medium-term consequences for domestic financial stability and the balance of payments, and are likely to lead to a rapid accumulation of domestic and external debt stock and servicing liability. To sustain its growth and economic development, the Government of Pakistan needs to make a strong commitment and concerted effort in the near and medium-term to initiate and maintain a consistent set of fiscal reforms to address the worsening fiscal situation.

This study, as a policy-oriented, applied research work on value-added tax (VAT), has empirically tested various policy options, including the feasibility of the introduction of a broad-based consumption-type VAT in Pakistan as a federal government tax. The three parts of the thesis have focused on most matters related to potential VAT implementation, operation and effects. The first part examines the influence of socio-political and economic developments on domestic resource mobilisation efforts; the effectiveness of the taxation structure; the organisation and processes of tax administration; and the need for fiscal reform. Part 2 evaluates policy options for improvement to the fiscal situation under the *status quo* scenario and the *adjustment* scenario. The feasibility of implementing a VAT in Pakistan has been

investigated within the broad objectives of the study. The theoretical aspects of the VAT have been discussed and pertinent literature on VAT reviewed. VAT performance has been evaluated by surveying 23 countries using the VAT. The third part of the study evaluates the strengths and weaknesses of the VAT by using descriptive, analytical and evaluative methods. Field research has been undertaken in Pakistan as well as in New Zealand and the Philippines. The study combines the responses of the major groups of Pakistan society and seeks to identify the problems and obstacles hampering the domestic resource mobilisation effort in Pakistan. Also, the administrative constraints on tax administration have been identified and solutions suggested. The study provides an outline of a potential blueprint for considering use of a VAT in Pakistan.

The study finds that a broad-based consumption type VAT is better on efficiency grounds than other alternatives investigated by the study. VAT implementation would reduce fiscal deficits substantially, and permit the Pakistan Government to maintain public sector development expenditure at a moderate level. The introduction of a VAT in Pakistan would be regressive, however, and even with exemptions and zero-rating of necessities, the regressive nature of the VAT would not change significantly. It is recognised that a well-targeted compensation and public transfer mechanism would be needed to protect the vulnerable groups of Pakistan society from an excessive VAT burden. Before VAT implementation, sufficient lead time should be given to educate the general public about VAT. This study also recognises that a system of training and incentives would enhance the work climate of the tax agency, and that the reform proposals discussed would have political and administrative implications, but in the present fiscal milieu, the Pakistan Government cannot avoid recourse to comprehensive fiscal reform.

Contents

List of Tables

List of Figures

List of Maps

List of Appendices

Glossary and Symbols

ACIR	Advisory Commission on Intergovernmental Relations
AB	Autonomous bodies
ADB	Asian Development Bank
AGPS	Australian Government Publishing Service
ANU	Australian National University
APS	Australian Public Service
AS	Austrian Schilling
AusAID	Australian Agency for International Development
C$	Canadian Dollar
CBR	Central Board of Revenue
CCEP	Consultative Committee on Economic Policy
CEC	Commission of the European Communities
CPI	Consumer price index
Dfl	Dutch Guilder
DK	Danish Kroner
DM	Deutsche Mark
EAC	Expert Advisory Cell
EEC	European Economic Community
EU	European Union
f.o.b	Free on board
FATA	Federally Administered Tribal Area
FBI	Federation of British Industry
fc	Factor cost
FCT	Federal Capital territory
FEER	Far Eastern Economic Review
Ffr	French Francs
Fim	Finnish Markkaa
Flux	Luxembourg Franc
GDP	Gross domestic product
GFCF	Gross fixed capital formation
GNP	Gross national product
GST	Goods and services tax

HIES	Household Integrated Economic Survey 1990-91
IACP	Investment Advisory Centre of Pakistan
IMF	International Monetary Fund
IRL	Irish Pound
JCPA	Joint Committee of Public Accounts
L	British Pound
LUMS	Lahore University of Management Sciences
MTFS	Medium term fiscal strategy
NCDS	National Centre for Development Studies
NEDO	National Economic Development Office
NFC	National Finance Commission
NKR	Norwegian Kroner
NTRC	National Tax Reform Commission
NWFP	North West Frontier Province
NZ$	New Zealand Dollar
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary least squares
PAYE	Pay-As-You-Earn
PIDE	Pakistan Institute of Development Economics
PIDS	Philippines Institute of Development Studies
PPS	Prescribed payments tax system
PSBR	Public sector borrowing requirements
PSC	Public Service Commission
R	South African Rand
RST	Retail sales tax
SEK	Swedish Kronor
SIPRI	Stockholm International Peace Research Institute
T&T	Telephone and Telegraph
UNDP	United Nations Development Program
US	United States
VAT	Value-added tax
WST	Wholesale tax

For tables and appendices

..	Information not available
na	Not applicable
-	Zero
.	Negligible
Sq.Km	Square Kilometres
Ω	Less than 0.5 per cent
*	Coefficient significant at one per cent level
**	Coefficient significant at five per cent level
>	Greater than

1

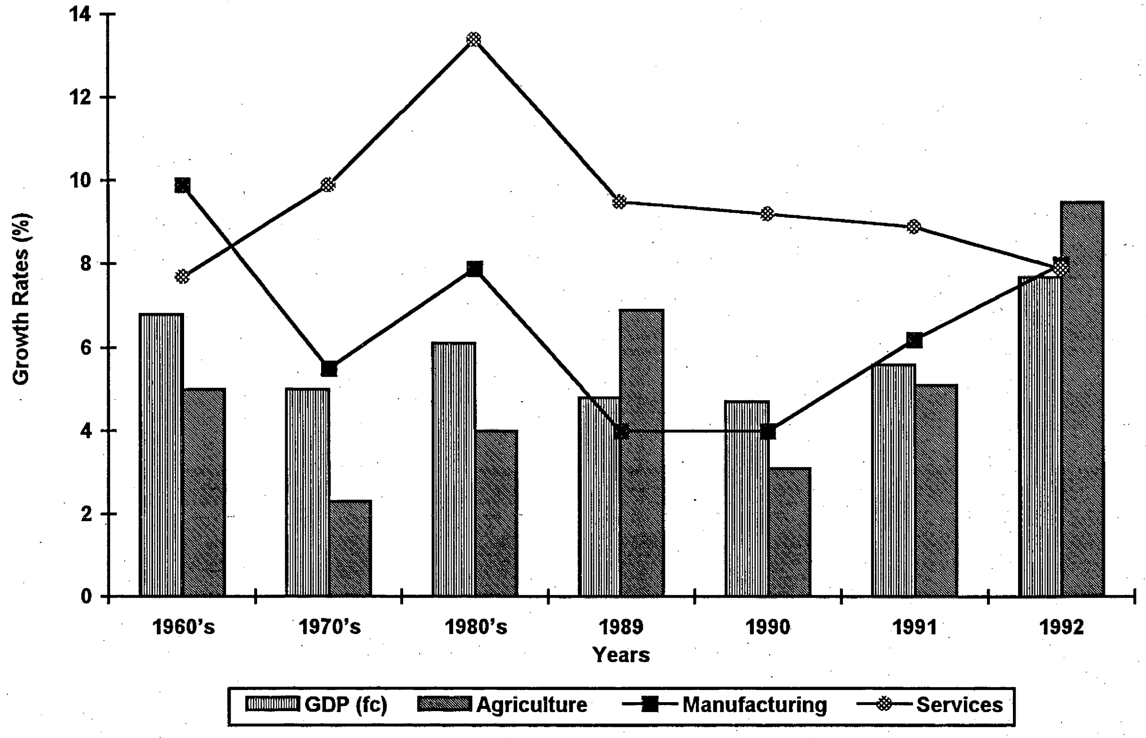
Introduction

Pakistan emerged as a sovereign nation on 14th August, 1947. In 1993, with a population of 120.8 million Pakistan was the ninth most populous country in the world. The development experience of this nation reveals a mixture of satisfactory economic growth and violent political disturbances (Nayak, 1988:3). The people have been forced to make the transition from one set of political parameters to another frequently and, in this process, normal legislative and political party practice has often been suspended (Noman, 1990:8; Lyon, 1993:218). Rivalry between politicians and the military has strengthened the role of the bureaucracy and their institutions in national policy-making and implementation (Nayak, 1988:7; Noman, 1990:9).

Despite its notable political environment, Pakistan has achieved remarkable economic progress in terms of both growth in gross domestic product (GDP) and structural changes in the composition of output. Real GDP has grown at an annual average rate of 6 per cent since the 1960s (Khan, A. H, 1992:843). Performance in the key sectors during this period has generally been satisfactory (Figure 1.1). Manufacturing value-added has grown at a more than respectable 8 per cent per annum. The service sector has achieved an annual average growth rate of 6.5 per cent; while the growth of agricultural value-added during this period averaged 4.2 per cent per annum (Government of Pakistan, 1992:2-3). Per capita income has increased from less than US$100 in 1956 to US$380 in 1990 (World Bank, 1992a:218).

However, according to some estimates about 30 per cent of the population live below the subsistence level (UNDP, 1992:87).

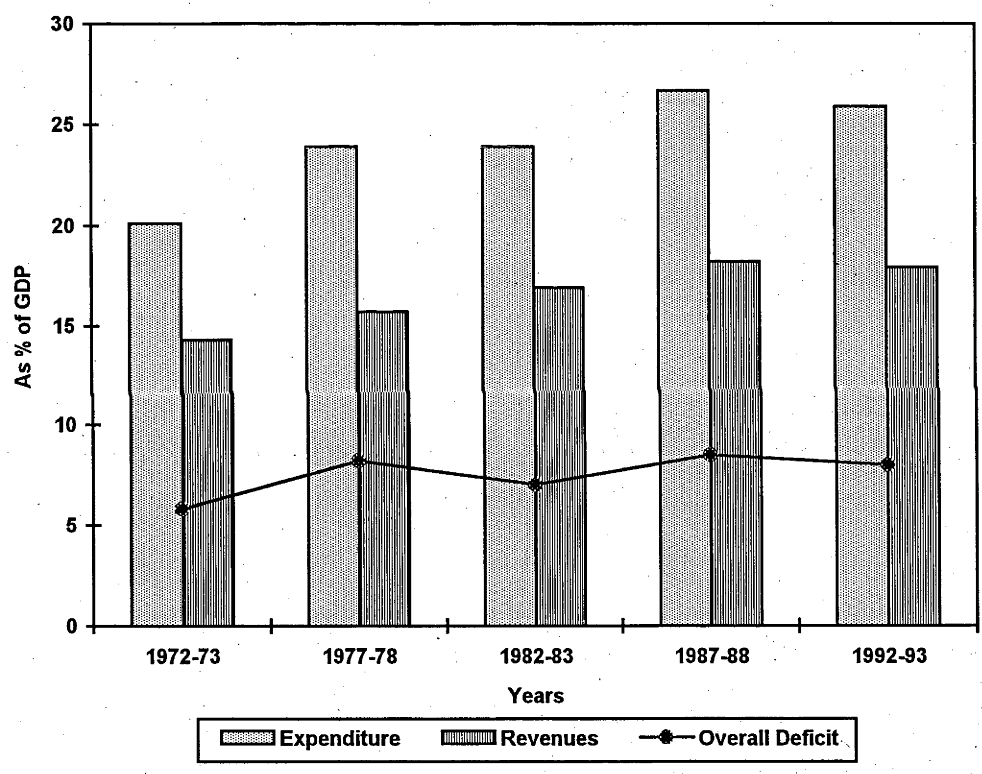
Figure 1.1 Growth rates of GDP and key sectors



Sources: Government of Pakistan, 1976. *Pakistan Economic Survey 1975-76*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.
Government of Pakistan, 1994. *Pakistan Economic Survey 1993-94*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.

Notwithstanding this generally good performance, the economy has not done as well as it could have due to political and bureaucratic manipulation of fiscal policies (Haque and Montiel, 1992:101). Financial indiscipline and lack of coordination between fiscal and monetary policies led to the accumulation of large foreign and domestic debt, a high rate of inflation, and increased vulnerability of the balance of payments and government budget. The balance of payments situation and the budget position have become precarious. The current account deficit of the balance of payments stood at US$2.15 billion in 1991-92 – 5 per cent of gross national product (GNP) – compared with US$1.56 billion (3.7 per cent of GNP) a year earlier. The fiscal deficit reached alarming proportions in 1990-91 at 8.7 per cent of GDP (Figure 1.2). This situation emerged because the political leadership failed to take bold resource mobilisation measures. Much needed budgetary reform measures, such as reductions in defence expenditure and subsidies, and the imposition of taxes on agricultural incomes, were not implemented because of interest group pressures (Noman, 1990:186). Instead, the authorities opted for the easier option of relying heavily on domestic and foreign borrowing.

Figure 1.2 **Budget and fiscal deficit** (as a percentage of GDP)



Sources: As in Figure 1.1.

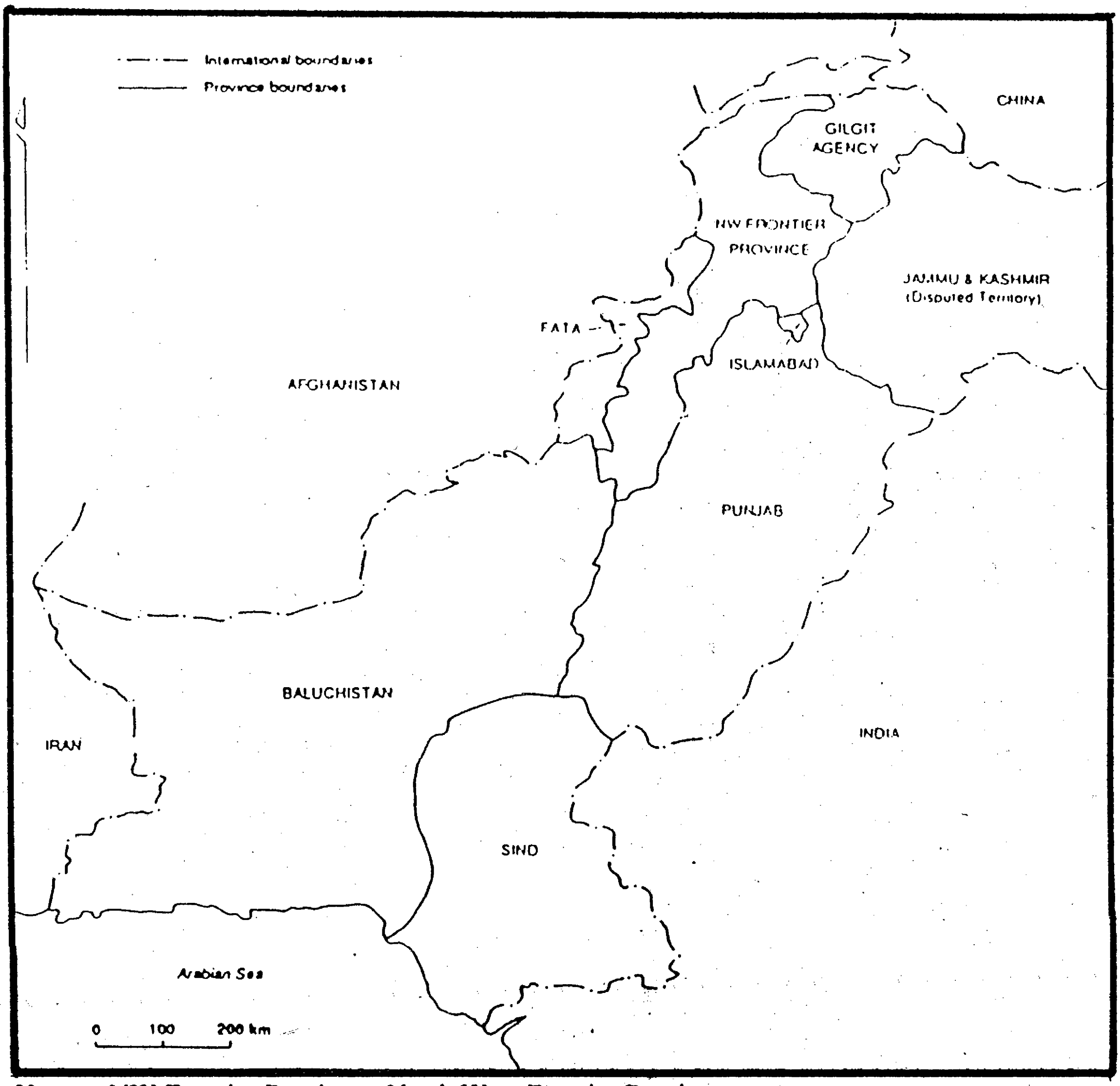
Socio–cultural setting

Pakistan is not a homogenous society. Each province of the federation of Pakistan has its own separate language, culture, and life style, built-up over the centuries (Lyon, 1993:216). Pakistan, like Israel is an ideological state (Burki, 1991:70). The majority of the population is Muslim. The Constitution of Pakistan provides that the principal of democracy, freedom, equality and social justice shall be observed as enunciated by Islam (Justice Division, 1985:1). Though religion provided a strong basis for an independent homeland for the majority of Muslims of the Indian Sub-Continent, it has had little influence on the cultural setting of the various provinces. Except on some special occasions, like wars with India, Pakistanis have lacked cohesiveness, a sense of belonging (Morris, 1993:198). Also, with each Province having such a rich cultural history, there has been little effort to integrate (Burki, 1991:29). Moreover, strong federal government control has overtime been manifest in a paternalistic attitude rather than promoting harmony between the various indigenous culture, and this has created socio-economic problems and social tensions (Burki, 1991:43).

Administrative set-up

Pakistan's administrative system is built around a federal structure. The federation includes the provinces of Punjab, Sindh, North West Frontier Province (NWFP), Baluchistan, Northern Areas (Gilgit Agency), the Federal Capital territory and the Federally Administered Tribal Areas (Map 1.1).

Map 1.1 **Map of Pakistan showing provinces and federally administered areas**



Note: NW Frontier Province= North West Frontier Province.
FATA= Federally administered tribal area.

Source: Directorate General of Films and Publications, 1991. *Pakistan: An Official Handbook 1991*, Ministry of Information and Broadcasting, Directorate General of Films and Publications, Islamabad: Government of Pakistan.

Punjab is the most densely populated of the four provinces (230 persons per square kilometre), followed by North West Frontier Province, Sindh and Baluchistan (Table 1.1). Each of the four main component entities of the federation is distinctively different in strength and stage of social and economic development (Lyon, 1993:216). The balance of power is largely tilted in favour of Punjab. Sindh with its large untapped agricultural resources has continuous problems of coordination and cooperation between its indigenous population and millions of migrants, especially those settled in urban areas. The Pathans in NWFP, as in Sindh, are divided into two groups – settled districts and tribal areas living in small independent communities that are highly egalitarian. The Baluchis are divided into many tribes, each has its separate identity and socio–cultural setting (Burki, 1991: 70).

Table 1.1 **Distribution of land area and population by Province** (proportions)

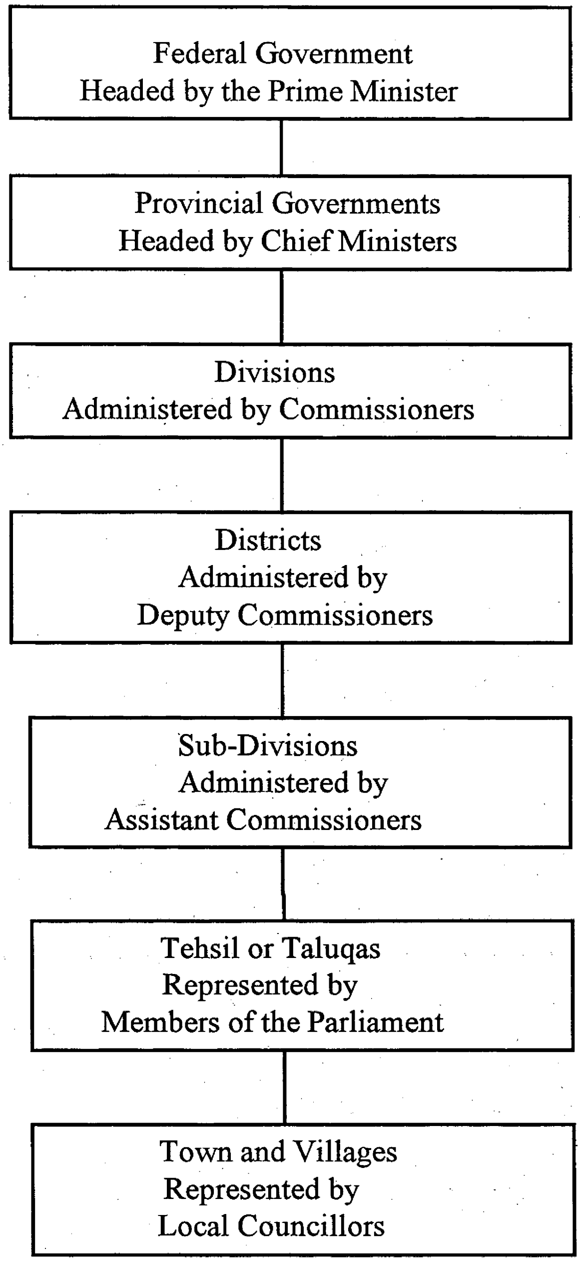
	Area	Population	Density (Sq.Km)	Sex ratio (Male/female)
Pakistan	100.0	100.0	106	111
Punjab	25.8	56.1	230	111
Sindh	17.7	22.6	135	111
NWFP[2]	9.4	13.1	148	109
Baluchistan	43.6	5.1	12	112
Federal Capital Territory	0.1	0.4	376	119
FATA[3]	3.4	2.6	81	108

Notes: [1]Sq.Km= Square Kilometres.
[2]NWFP = North West Frontier Province.
[3]Federally Administered Tribal Areas.

Source: Federal Bureau of Statistics, 1991b. *Pakistan Statistical Yearbook 1991*, Statistics Division, Federal Bureau of Statistics, Islamabad: Government of Pakistan:16.

For administrative purposes, each province is successively divided, into divisions, districts, tehsils/taluqas and villages. The villages are grouped into unions for the purpose of local government. Local government institutions also exist at the district level. In urban areas, there are municipal corporations, municipal committees, town committees and containment boards (Figure 1.3 below briefly gives the detail of the administrative structure).

Figure 1.3 **Administrative structure of Pakistan**



Note: Commissioners and Deputy Commissioners normally belong to federal government service. They are responsible for the general administration, law and order, internal security and revenue collection.

Source: Directorate General of Films and Publications, 1991. *Pakistan: An Official Handbook 1991*, Ministry of Information and Broadcasting, Directorate General of Films and Publications, Islamabad: Government of Pakistan.

Economic developments

On the economic front the course of development has not been without mistakes. During the long drive towards self-sustaining growth, many mistakes have been made and many opportunities missed. Within the mixed economic system, centralised economic planning has been used to enforce the political and social frameworks of the government in power. A review of past development efforts indicates a continuous shift in government policy and approach. Development efforts in the 1950s were characterised by the initial difficulty of breaking the age-long stagnation of the economy. After independence, the government was confronted with many socio-economic problems, especially dealing with the large influx of refugees from India. In this period emphasis was placed on industrialisation and reliance on the private sector.

The sixties – industrialisation and aid dependent growth strategy

In the 1960s emphasis was placed on industrialisation and the setting up of a system of incentives to achieve this objective (Planning Commission, 1965:70). The government largely confined its role to providing social and physical infrastructure. Fiscal policies were designed to provide powerful incentives, along with paternalistic guidance (Gardezi and Rashid, 1983:7). These incentives included subsidies, tax concessions, import licences, a managed exchange rate and other salutary devices (Planning Commission, 1956:98; Andrus and Muhammad, 1958:150-151; Bhatia, 1979:78). Such policies promoted capital formation by a few wealthy industrial families who owned the major share of industrial assets as well as banks and insurance companies. Because of their inter-linkages, these families were able to pre-empt substantial financial resources from financial institutions. An arbitrary system of credit rationing, covering 50 to 60 per cent of total bank lending, inhibited the process of broadening the base of ownership of industrial capital and more even distribution of incomes (Planning Commission, 1965:117; Nayak, 1988:54).

During this period Pakistan adopted an aid-dependent growth strategy. The second (1960-65) and third (1965-70) five-year development plans were heavily dependent on foreign aid. It was argued that with the help of foreign aid the country would attain self-reliance rapidly (Planning Commission, 1965:8; Kemal, 1992:1101). Throughout the 1960s the economy maintained its growth momentum with the help of substantial inflows of foreign capital. In this period the rate of growth of investment followed the path of foreign aid (Amjad, 1979:298).

Within the framework of the import substitution strategy in the 1950s and the 1960s economic growth was preferred over its more even distribution in the belief that in the initial stage of development, equity must be sacrificed for growth (Johnson, 1962:153; Haq, 1966:30). This belief was based on the notion that the individual greed of the 'robber barons' of industry would lead to a larger national cake and eventually benefit the entire society (Papaneck, 1967:149; Noman, 1990:40). The second five year plan (1960-65) argued that "it will be necessary to tolerate some initial growth in income inequalities to reach a high level of savings and investment" (Planning Commission, 1960:49). Similarly, the fourth five year plan (1970-75) argued, "equitable distribution of incomes had to wait till the level of production had risen sufficiently to make such distribution possible" (Planning Commission, 1970:11).

The political acceptability of support measures, concessions and incentives for the private sector on a scale which could not be easily tolerated in any other country (Baqai, 1979:124) critically distorted the domestic resource base. The multiple exemptions diluted the revenue-generating capacity of the tax system and facilitated tax evasion through the transfer of taxable profits to non-taxable activities (Government of Pakistan, 1991b:21). The concentration of income and wealth in the hands of the few rich resulted in a decline in the standard of living for the majority of the population (Griffen and Khan, 1972:200-204).

The seventies – strategy of nationalisation to achieve social balance

The 1970s development policy of widespread nationalisation of capital and intermediate goods industries was a major element in a development strategy, of which the primary objective was professedly a balance between social justice and economic growth (Baqai, 1979:136: Nayak, 1988:115-16; Noman, 1990:76). However, expansion of public enterprises without administrative capacity for managing the taken-over industrial units led to bottle-necks in production (Naik, 1993:3). Protection of the inexperienced public sector management inhibited the development of an internationally competitive industrial sector. Increased public sector consumption eroded the public savings base and had an adverse impact on domestic savings (State Bank of Pakistan, 1985:5). The large-scale nationalisation paralysed private investment initiatives. As a result, there was an overall decline in aggregate investment (Naqvi and Sarmad, 1984:61-62). Moreover, reforms introduced by the government added a major element of uncertainty to economic relations which could not be removed by subsequent assurances (Naik, 1993:18).

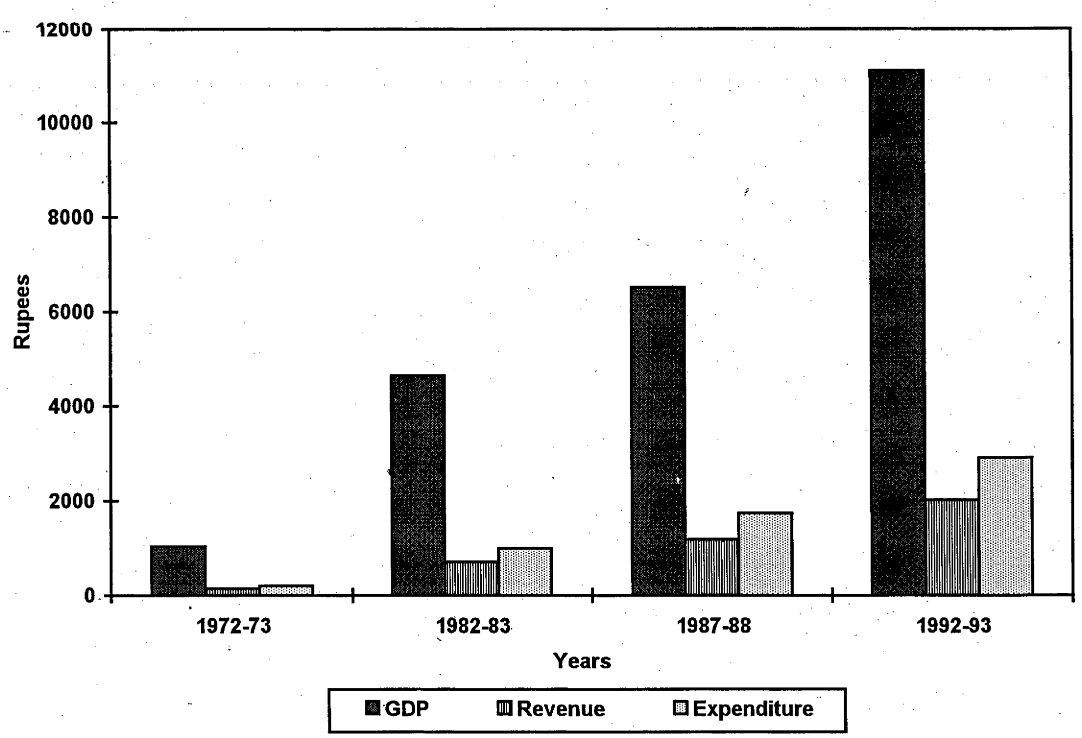
The eighties – self-reliant growth strategy

In the 1980s, the military regime endeavoured to support the policies of the 1970s. At the political level, substantial strides were made to orient, encourage and protect private capital. The major policy shift began with the financial and trade regime reforms. Regulations governing investment and imports were substantially liberalised. A comprehensive export promotion scheme was promulgated. The high tariff structure and other import controls were reduced and exchange rate reforms were made. Privatisation became one of the most important components of the economic reform program implemented by the government, with the help of international financial development institutions. The main objectives of this policy were to reduce the drain on government resources caused by the persistent losses of government-owned enterprises and to create greater opportunities for the private sector to expand and modernise these enterprises. The reduced role of the government in industrial and commercial activities was seen as beneficial as it would release sufficient public resources for nation building activities such as education, health and essential infrastructure such as power and transport. During this period, development strategies focused on self-reliant growth (Zaman, 1989:9; Kemal, 1992:1101). However, little success has been achieved in the realisation of these objectives because of many internal as well as external factors, especially the world wide recession.

Budgetary developments

The most notable feature of public finance in Pakistan has been the emergence of large fiscal deficits. Since 1982-83 the government budget, its deficit and its financing, have been major topics of discussion. Initially, the budget deficits accelerated due primarily to large increases in government expenditure. In the later part of the 1980s, however, it was due to a manifestation of a rise in government outlays and shortfalls in government revenue. The sharp deterioration in the fiscal situation is not specifically attributable to the general economic climate, but rather to the turbulent domestic political climate and budgetary policies and their administration. Fiscal instruments (in the form of 'tax expenditures and tax preferences') were used for advancing wide-ranging but, often conflicting tax policy objectives. The poorly conceived tax preferences (also serving as 'tax shelter') have resulted in massive tax evasion and unfair tax burden. The high tax rates (due to the after-tax rate of return often below the opportunity cost of investment) have encouraged tax avoidance and adversely effected the fairness of the tax system. Further, poor tax compliance introduced considerable inequity and inefficiency in the tax system. Despite continuous real per capita GDP growth – at an average annual rate of 3 per cent since the 1960s – the Government has failed to mobilise adequate revenue to meet defence, development and other public expenditure requirements (Planning Commission, 1990:53). It appears that throughout the period, per capita government expenditure was higher than the per capita revenue yield to the government. Figure 1.3 below shows these trends.

Figure 1.4 **Per capita GDP, revenues and expenditure**



Sources: Government of Pakistan, 1976. *Pakistan Economic Survey 1975-76*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and Appendix 2.3.

Pakistan's savings performance and its overall economic performance appear to be incongruous. While Pakistan's real GDP has grown at an average rate of 6 per cent per annum since 1960, its national savings rate since 1977-78 has fluctuated between 13 and 16 per cent of the gross national product (GNP). Domestic savings (public and private, excluding net factor income from abroad) were only 12.4 per cent of GDP in 1992-93 (Table 1.2), compared to an average saving rate of 19 and 28 per cent respectively in low growth and high growth developing countries (World Bank, 1989b:27; Naik, 1993: 2).

Table 1.2 **Pakistan: consumption, investment and savings** (as percentage of GNP)

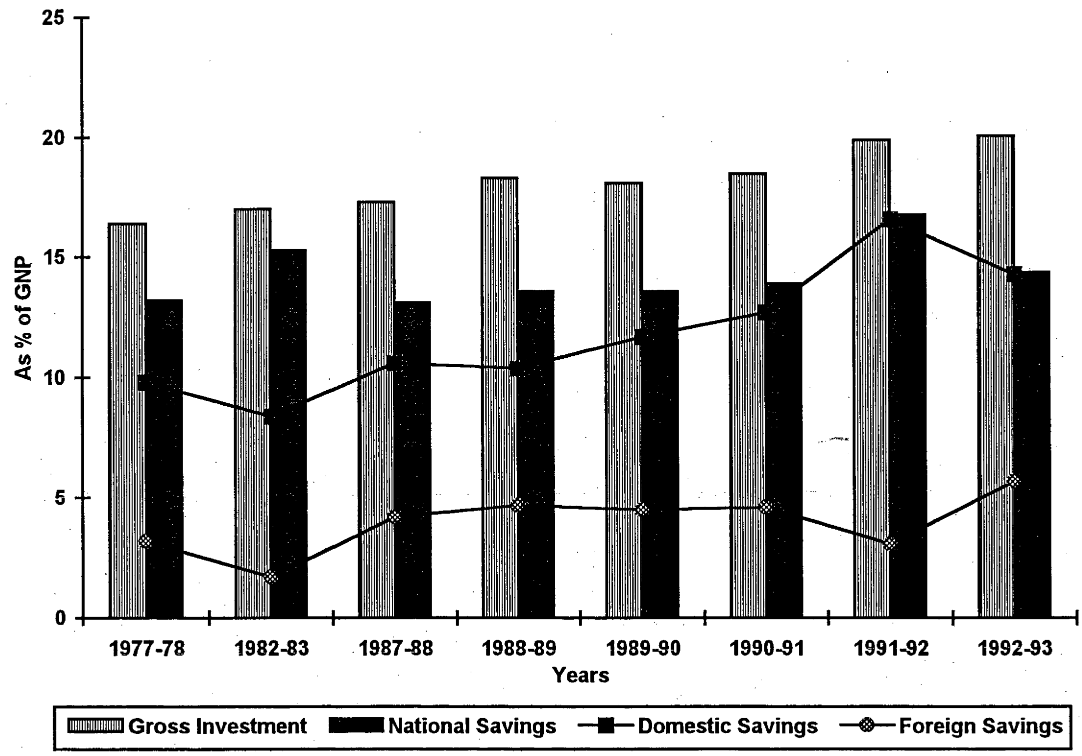
	1977-78	1982-83	1987-88	1992-93
Consumption	85.3	82.6	83.9	80.4
Private	75.2	72.3	69.1	68.1
Public	10.1	10.3	14.8	12.3
Investment	16.7	17.0	17.3	19.6
Private	5.4	6.6	7.4	9.5
Public	10.8	8.7	8.4	8.6
Change in stock	0.5	1.7	1.5	1.5
National savings	15.6	15.4	13.1	14.1
Private	13.2	14.2	11.8	12.2
Public	2.4	1.2	1.3	1.9
Of which:				
General government	1.8	0.3	-0.4	.
Domestic savings[1]	9.8	8.4	10.6	12.4
Foreign savings	1.1	1.6	4.2	5.5
		Annual average growth rate (%)		
	1977-78	1982-83	1987-88	1992-93
Consumption	21.4	15.7	12.1	14.1
Investment	29.6	16.8	12.2	17.9
Private	22.5	21.3	14.1	21.1
Public	39.1	11.5	11.2	16.0
National savings	33.6	16.1	8.2	16.6
Domestic savings	22.0	12.1	18.5	22.3
Memorandum items:				
GNP (current billion rupees)	188.5	403.8	704.5	1356.9

Notes: [1]As percent of gross domestic product (GDP).
.Negligible.

Sources: Federal Bureau of Statistics, 1991a. *National Accounts of Pakistan 1990-91*, Statistics Division, Federal Bureau of Statistics, Karachi: Government of Pakistan.
Government of Pakistan, 1994. *Pakistan Economic Survey 1993-94*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.
State Bank of Pakistan, 1993. *Annual Report 1992-93*, Karachi: State Bank of Pakistan.

The low saving performance in Pakistan is mainly due to low public savings (Heller, 1975:429; Planning Commission, 1991:56). Studies by Abbot and DeRosa (1984:3); Jetha *et al.* (1984:2); Fry (1991:27); Khan, A. H (1992:843); Burney and Khan (1992:31) have found that the country's heavy dependence on foreign capital and its weak tax administration has promoted a high consumption culture in the country. Large foreign capital inflows, on soft terms, in the 1960s and 1970s distorted the composition of investment and increased investment in consumption oriented activities (Griffen and Enos, 1970:321; Naqvi, 1971:5). During this period public consumption has increased substantially without matching increases in public revenue. Ineffective tax policies and growing public sector consumption have resulted in a continuous decline in government savings which have been negative or negligible in the past 10 years (Table 1.2). It appears that Pakistan's investment rate since the 1970s – around 17 per cent of GNP – has largely been financed by foreign remittances from Pakistani workers and bilateral and multilateral foreign aid. In the absence of these two financing sources it would have been difficult for the government to support even the low investment level from domestic resources (Figure 1.5).

Figure 1.5 **Investment and savings** (as percentage of GNP[1])



Note: [1]Domestic savings as percentage of GDP.
Sources: State Bank of Pakistan, 1991. *Annual Report 1990-91*, Karachi: State Bank of Pakistan.
State Bank of Pakistan, 1993. *Annual Report 1992-93*, Karachi: State Bank of Pakistan.
Appendix 2.1 and Appendix 2.3.

The deterioration in the government's budgetary position mainly emerged during the fifth plan period (1978-83). Against the Plan target of rupees 74 billion, the revenue surplus was rupees 27 billion (Planning Commission, 1988:58). During the sixth plan period (1983-88) the revenue budget went into deficit. Against the Plan's revenue surplus target of rupees 52 billion, a deficit of rupees 40 billion emerged, a swing of Rupees 92 billion (Planning Commission, 1990:220). This deterioration was accentuated in the seventh plan period (1988-93). The Plan implementation shows that government revenue fell substantially behind the growth of government expenditure (Table 1.3). Consequently, the fiscal deficit peaked in 1990-91 at rupees 89 billion (8.7 per cent of GDP) – up from 5.8 per cent of GDP in 1972-73 (Naik, 1993:5). The preliminary assessment of fiscal deficit during the seventh plan period indicates that fiscal deficit at 7.7 per cent of GDP remained high (Table 1.3).

Table 1.3 **Trends in government revenue, expenditure and fiscal deficits** (as a percentage of GDP)

Year fiscal	Government expenditure			Government	Overall
	Total	Current	Development	revenue	deficit
1972-73	20.1	13.5	6.6	14.3	5.8
1982-83	23.9	15.8	8.1	16.9	7.0
Fifth Plan (1978-83)	23.7	14.8	8.9	17.1	6.6
1983-84	23.8	17.1	6.7	17.8	6.0
1984-85	24.8	17.8	7.0	17.0	7.8
1985-86	26.1	18.4	7.7	18.0	8.1
1986-87	26.7	20.4	6.3	18.5	8.2
1987-88	26.7	19.8	6.9	18.2	8.5
Sixth Plan (1983-88)	25.8	18.9	6.9	17.9	7.9
1988-89	26.1	19.9	6.3	18.7	7.4
1989-90	25.8	19.3	6.5	19.3	6.5
1990-91	25.6	19.2	6.4	16.9	8.7
1991-92	26.5	19.0	7.5	19.1	7.4
1992-93	26.2	19.8	6.4	18.2	8.0
Seventh Plan (1988-93)	26.1	19.4	6.7	18.4	7.7

Sources: Government of Pakistan, 1976. *Pakistan Economic Survey 1975-76*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and Appendix 2.3.
Revenue Division, 1993. *CBR Yearbook 1991-92*, Revenue Division, Central Board of Revenue, , Islamabad: Government of Pakistan.

The growing fiscal deficits are threatening price stability, weakening an already fragile balance of payments, constraining essential social infrastructure, and thereby undermining growth prospects (Bernheim, 1988:30; Lyon, 1993:222). If the fiscal deficits are not reduced to a sustainable level they will undermine Pakistan's credit-worthiness in the international market – if they have not done so already. The increasing monetisation of fiscal deficits will have an adverse impact, *via* high inflation on resource allocation and income distribution, with consequent social distress (Gupta, 1992:38). Upward inflation, devaluation, and rising interest rates could disrupt production and investment activities severely and also lead to large scale capital flight.

The need for domestic resource mobilisation

Comprehensive tax reform is needed for several reasons. First, while the tax structure has undergone some changes over the years there are changes needed both in its revenue raising capacity and towards simplifying it. Bird (1991) observed that the key to successful tax reform is a tax structure that can be administered adequately with the available resources while at the same time making the best possible use of those resources from a long-term perspective. Second, the modifications which have been introduced during the last two decades, as discussed earlier, have been of an *ad hoc* nature and have, despite their usefulness, created a superstructure which lacks cohesion. The tax policy changes brought about in the wake of relatively increased economic activity, particularly during the 1980s were, however, not part of a well-considered tax reform program but *ad hoc* changes addressed to the specific issues. Therefore, changes in tax policy were not accompanied by appropriate improvements in the taxation structure. Third, present fiscal legislation is best viewed more as an historical growth than as a system in the sense of a deliberately conceived and integrated structure in which every part has a defined role to play. Finally, for sustainable growth in the long-run, Pakistan has to accelerate investment in physical and human capital, especially in the areas of rural development, power generation, irrigation, transportation, education and basic health facilities.

In the past, as a percentage of national expenditure, Pakistan has allocated insignificant funds for the nation building activities. The level of education, health facilities and other quality of life indices, such as access to drinking water and sanitation facilities places Pakistan in a low performance category (Table 1.4). Measured in terms of the Human Development Index (HDI), Pakistan ranks 120th out of 160 countries (UNDP, 1992:16). Neglect of social services has probably contributed towards the increase in the population rate and resulted in a decline in living standards of the majority of the population (Noman, 1990:41). There is a pressing need to increase means for the development of social sector programs, which given the existing weak resource position appears very unlikely.

Table 1.4 **Quality of life indicators: international comparisons** (recent years)

	Pakistan	South Asia	Developing countries	Developed countries
Life expectancy (years)	57.7	58.4	62.8	74.5
Adult literacy (% 15+)	31.0	42.0	60.0	99.0
Year of schooling (25+)	0.7	2.2	3.5	9.1
Under-five mortality[1]	162.0	151.0	116.0	1.0
GNP per capita (US$)	350	388	706	12508
Education expenditure[2]	2.2	3.4	3.7	5.2
Health expenditure[2]	0.2	1.0	1.4	4.7
Military expenditure[2]	6.7	7.2	5.5	5.4
Ratio military expenditure/ education and health	279	164	109	38
Access to clean water				
% of total population	41.0	..	..	..
% of rural population	31.0	..	..	..
% of urban population	65.0	..	..	..
Access to sewerage facilities				
% of total population	20.0	..	..	..
% of rural population	12.0	..	..	..
% of urban population	48.0	..	..	..
Availability of electricity				
% of population	35.0	..	..	..
Physician per hospital bed	5653	..	..	..
Physician per person	1815	..	..	..
People below poverty line (%)	30.0	..	..	..

Notes: [1]Per 1000.
[2]Percent of GNP.
..Information not available.

Sources: UNDP, 1992. *Human Development Report 1991,* New York: Oxford University Press: 86-87.
Planning Commission, 1991. *Mid-Term Evaluation of Seventh Plan (1988-93),* Planning Commission, Islamabad: Government of Pakistan.
Planning Commission, 1992. *Social Action Program 1992-95,* Planning Commission, Islamabad: Government of Pakistan:Table 3.5:45.

The fiscal system, therefore, not only needs comprehensive reform of the taxation structure but also some new forms of tax which could generate additional revenues. This study is one step in this direction. The study aims to examine the revenue potential of the value added tax as a federal government tax and its administrative feasibility as an alternative tax in place of the sales tax. With respect to the implementation of the value-added tax in Pakistan the study aims to answer two questions:

(a) Why may the Pakistan Government find the value-added tax attractive?

(b) What difficulties would be encountered in implementation of the value-added tax?

Objectives of the study

The objective of this study, therefore, is to suggest measures for rebuilding the existing taxation structure to provide a buoyant new source of government revenue. The study aims to examine Pakistan's fiscal system under two options, i.e., *status quo* policy scenario and the *adjustment* policy scenario.

The premise of the *status quo* policy scenario is that major restructuring of the fiscal system, entailing increased taxation measures, would be politically unfeasible; therefore no change in the fiscal system is desirable. Government revenue and expenditure are simulated up to the year 1998 on the basis of current trends and unchanged policies.

The second option, the *adjustment* policy scenario, assumes that the *status quo* policy option is not appropriate in the present circumstances, because without a fundamental restructuring of the budgetary system, the economy would quickly run into serious difficulties and the budget deficits would reach unsustainable levels. The *adjustment* policy scenario, therefore addresses the restructuring of the fiscal system. Under this option the study aims to investigate various strategies for generating additional revenue to the government such as: (i) strengthening tax administration; (ii) widening the tax base by reducing tax exemptions and incentives and imposing tax on agricultural incomes; (iii) containing the growth of non-development expenditure by reducing expenditure on defence, subsidies and imposing users' charges; and (iv) implementation of a consumption-type value added tax. The specific objectives of this study will be to:

1. Estimate the additional revenue gained through levying a broad-based value added tax on consumption in place of the existing sales tax and assess its impact on consolidated government finances.

2. Assess distributional consequences of the implementation of a value added tax on various income groups.

3. Assess taxpayer compliance and administrative feasibility of the implementation of a value added tax in Pakistan.

Outline of the study

The thesis contains ten chapters. Following the introduction of Pakistan's socio-economic and budgetary developments in this chapter and a review of Pakistan's fiscal system in chapter 2, chapter 3 reviews the policy options for domestic resource mobilisation. Chapter 4 discusses the value added tax – its background, strength and weaknesses, and conceptual framework. Chapter 5 contains a review of the implementation and administration of the value-added tax in 23 countries. Chapter 6 discusses an outline of the analytical framework. Chapters 7, 8, and 9 assess the revenue potential of the VAT, its distributional implications, and taxpayer compliance and administrative feasibility of a VAT system in Pakistan. Finally, chapter 10 presents the summary and conclusions.

2

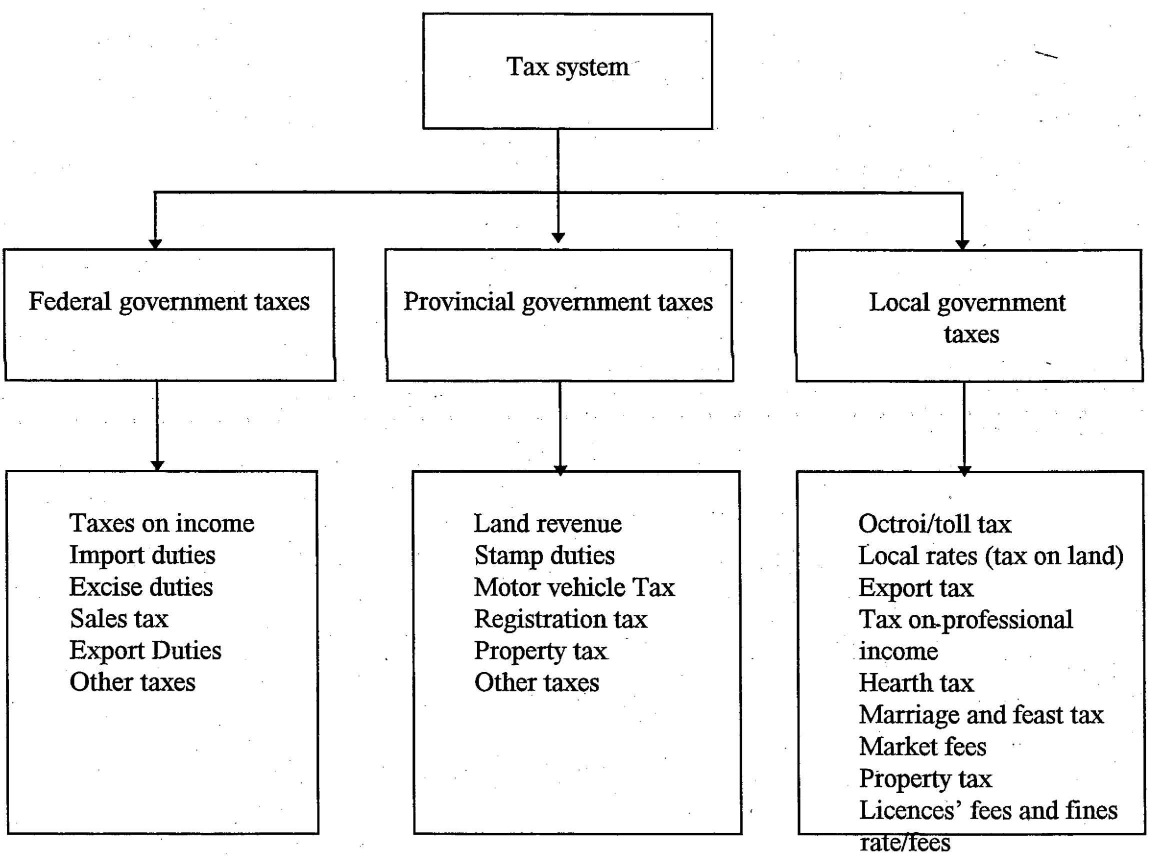
The Fiscal Structure of Pakistan

The fiscal structure of Pakistan is based on separate constitutional powers of revenue collection and expenditure between various level of governments. The areas of exclusive federal responsibility include: defence; external affairs; fuels (oil and natural gas); air, sea and rail transport; national highways and strategic roads; banking and currency. The provinces have major responsibilities in the areas of education, health, agricultural support services, maintenance of the irrigation system, provincial and rural roads, and internal law and order.

The federal government has powers to collect and make laws for duties of customs, taxes on personal incomes and corporate profits, taxes on domestic goods and services and taxes on capital value of assets. Its expenditure is mainly on defence, and debt servicing, foreign affairs, power generation and distribution, telecommunications, and aviation. Provincial government revenues are derived mainly from water rates, taxes on trades and professions, stamp duties, taxes on motor vehicles, and taxes on immovable property. As a constitutional obligation the federal government shares with the provinces proceeds of certain taxes. The provinces are responsible for managing and controlling about 60 per cent of essential economic and social infrastructure, including education (80 per cent), health (80 per cent), agriculture (90 per cent), public transport and water sewerage.

The local government bodies' finances are outside the consolidated (federal and provincial) budgetary mechanism. These bodies, such as municipalities, and district and local councils, levy taxes, rates and fees as per the Local Government Ordinance/Acts with the approval of provincial government (Government of Pakistan, 1989:3). The main sources of their income include local taxes and fees (Figure 2.1). Their expenditure is mainly for small local-level activities. Figure 2.1 gives details of the tax collection powers at the various levels of governments.

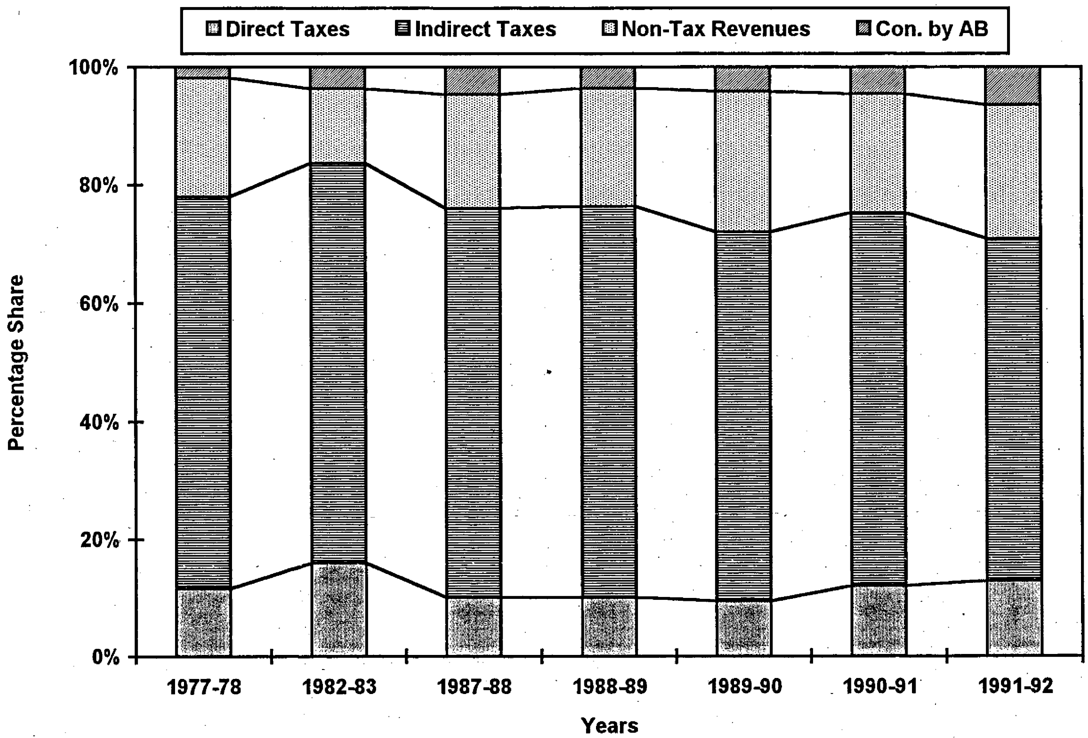
Figure 2.1 **Tax collection powers at various level of governments**



Sources: Justice Division, 1985. *The Constitution of the Republic of Pakistan 1973*, Ministry of Justice and Parliamentary Affairs, Justice Division, Islamabad: Government of Pakistan.
Government of Pakistan, 1979. *Local Government Ordinance 1979*, Ministry of Local Government, Islamabad: Government of Pakistan.

Direct and indirect taxes comprise approximately 80 per cent of total revenue of government. Non-tax revenue includes income from public sector property and enterprise, interest and dividends and the contribution of the public sector autonomous bodies. These proportions have been reasonably constant since 1977-78 (Figure 2.2).

Figure 2.2 **Consolidated revenue, 1977-78 to 1991-92** (percentage share)

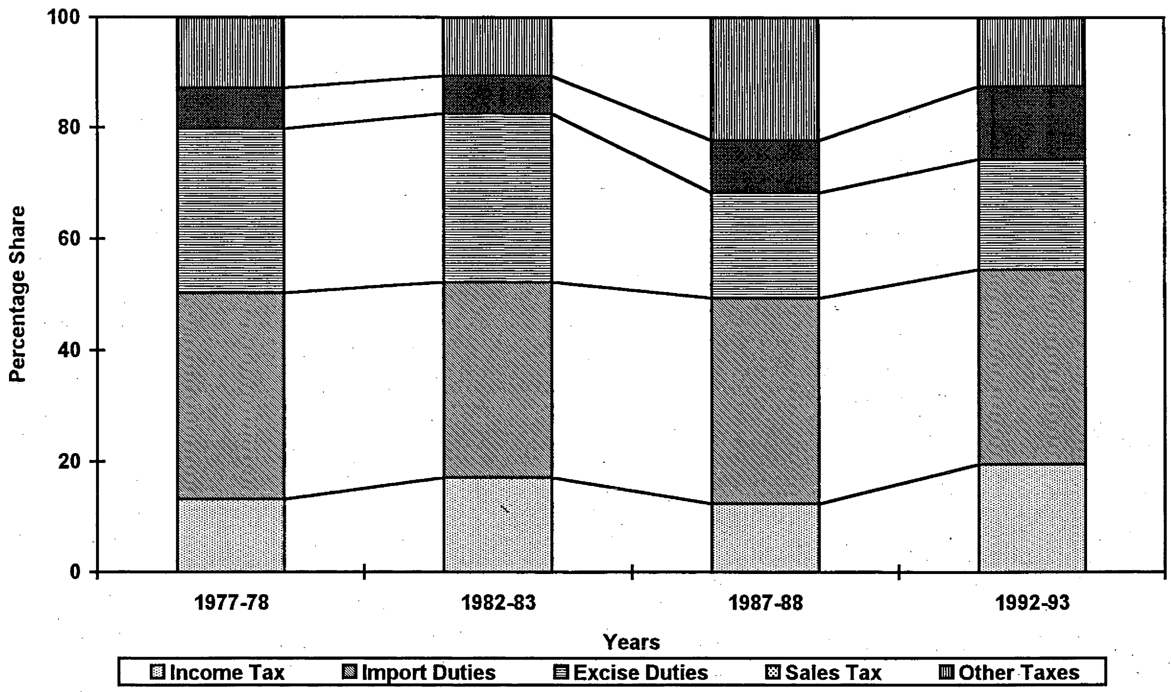


Note: Con. by AB = Contribution by public sector autonomous bodies.
Sources: Appendix 2.1 and Appendix 2.3.

Government revenue

As in many developing countries, the taxation structure of Pakistan is heavily dependent on indirect taxes, accounting for about 60 per cent of the total taxes – approximately 11 per cent of GDP (Figure 2.3). Major indirect taxes are customs duties, excise duties on domestically produced goods and services and sales tax on domestically produced goods and imports. In 1992-93, import duties comprised 35 per cent of total taxes and 45 per cent of total indirect taxes (Appendix 2.3). Direct taxes are levied on both personal income and profits of companies and registered firms, and on wealth.

Figure 2.3 **Structure of direct and indirect taxes, 1977-78 to 1992-93** (percentage share)



Sources: Appendix 2.1 and Appendix 2.3.

Pakistan's tax performance relative to other countries has been weak (Table 2.1), especially in collection of direct taxes. Exemptions granted to achieve a multiplicity of objectives, such as industrialisation in less developed regions, increasing domestic savings, promoting exports, and supporting charities and welfare activities, has had an adverse impact on its growth (PIDE, 1992:25; Khan, A, 1992:1124). The cascading nature of existing commodity taxes has created many distortions in the economy. These taxes have an adverse impact on domestic production and the country's international competitiveness.

Taxes on income

Income tax is the principle form of direct taxation accounting for approximately 95 per cent of direct taxes. Its yield is low because of the inelastic and narrow base. Incomes in the agriculture sector, which generates about 26 per cent of the value added in the economy, and agricultural-related industries have long been exempted from income tax (NTRC, 1986:134; Qureshi, 1987:157).

Table 2.1 **Tax revenue in selected countries** (as a percentage of GDP)

Sample	Tax revenue[1]		
	1973	1980	1991
Low-income countries			
India	11	10	11
Kenya	14	20	22
Pakistan	10	13	13
Sri Lanka	13	19	18
Indonesia	14	21	18
Lower-middle income countries			
Philippines	9	12	15
Papua New Guinea	17	19	18
Thailand	10	13	19
Upper-middle income economies			
Mexico	9	15	15[2]
Uruguay	19	21	27
High-income economies			
Singapore	15	18	18
New Zealand	21	31	33
Belgium	30	41	42
United Kingdom	27	30	34
Australia	17	21	24
Germany	25	28	29
United States of America	17	19	18
Canada	22	16	18[2]

Notes: [1]Consolidated central government.
[2]1989.

Sources: IMF, 1993a. *Government Finance Statistics Yearbook 1993*, Washington, DC: International Monetary Fund.
IMF, 1994. *International Financial Statistics Yearbook 1994*, Washington, DC: International Monetary Fund.

The income tax structure, with many tax brackets and high marginal rates, has encouraged tax evasion (PIDE, 1992:22; Coopers & Lybrand, 1989:3-10). Only approximately 800,000 of Pakistan's 113 million (in 1990-91) people paid income tax. Much of the income earned is exempt from tax by the high threshold limit – currently rupees 40,000 for salary income and rupees 30,000 for other personal income

(Appendix 2.4). Because of these structural deficiencies, the tax share, as a proportion of GDP, has fallen from 2.4 per cent during 1978-83 to 2.1 per cent during 1988-93 (Table 2.2).

Table 2.2 **Growth pattern of tax and non-tax revenue** (as a percentage of GDP)

	Fifth plan period (1978-83)	Sixth plan period (1983-88)	Seventh plan period (1988-93)
Total revenue	17.1	17.9	18.4
Tax revenue	13.7	13.9	13.5
Direct taxes	2.6	2.0	2.3
Taxes on income	2.4	1.8	2.1
Indirect taxes	11.1	11.9	11.2
Import duties	4.9	5.3	4.9
Excise duties	3.9	3.0	2.6
Sales tax	1.0	1.1	1.8
Other taxes	1.3	2.5	1.9
Non-tax receipts	2.7	3.4	4.2
Contribution by autonomous bodies	0.6	0.6	0.7
Memorandum item: GDP (current billion rupees)	1392.7	2654.4	5199.6

Sources: Appendix 2.1 and Appendix 2.3.

Import duties

Pakistan has followed a policy of import substitution through direct controls and tariffs (NTRC, 1986:168). Direct controls excluded import of certain goods, while high tariffs on permitted imports were used for the twin purposes of revenue generation and control. The tariff structure imposed high rates on luxury and non-essential goods, while imports of machinery, industrial raw materials and agricultural machinery were either exempted or charged at nominal rates. As a consequence of this policy, a small number of goods have been taxed heavily, promoting a large inflow of smuggled goods which led to the opening of "Bara Markets" (smuggled goods markets) all over the country. According to the National Taxation Reform Commission report, approximately 80 billion rupees worth of imports escape import duties each year (NTRC, 1986:225-227).

Export duties

Export duties are used for a variety of reasons: to stabilise domestic prices of exportables; to raise revenues; and to provide preferential treatment for manufacturers (World Bank, 1978:11). These duties have never been a reliable source of revenue and are viewed as a device for siphoning off windfall gains otherwise accruing to exporters as a result of increases in international commodity prices. Though export duties are levied on a large number of goods, their impact is heaviest on cotton, rice and hides and skins. For example, in 1990-91, 63 per cent of total export duties collected were from the export of raw cotton and 30 per cent from cotton yarn (Revenue Division, 1992:234).

Excise duties

Excise duties were initially designed for the purpose of controlling consumption of selected products (Investment Advisory Centre of Pakistan, 1985:1). However, over time, these duties, as with other taxes, have been used to support the weak revenue base. In 1991-92, the excisable commodities list included 78 commodities and 14 services (Revenue Division, 1993:133). The bulk of these duties, however, have been collected from a limited number of commodities. For example, in 1991-92, 85 per cent of excise duties was collected from seven commodities namely, tobacco, sugar, oil and petroleum products, cement, natural gas, cotton-yarn and beverages (Revenue Division, 1993:149).

Sales tax

The sales tax is a single-stage manufacturing tax imposed on imports and on domestic production. As elsewhere, exports are exempt from sales tax. Under the

Constitution services cannot be made liable for sales taxation (Justice Division, 1985:86). Here again, the tax base has been distorted, as many goods and services have been exempted from the tax. At 1.8 per cent of GDP in 1992-93, collection of revenue from sales tax is low by international standards (Table 2.2). Given the current weakness in direct taxation and the heavy reliance on import duties, broadening the sales tax base has been viewed as an efficient alternative source for revenues (Casanegra *et al.* 1989:11; PIDE, 1992:35).

Government expenditure

Public expenditure (current and capital) as a proportion of GDP has increased from 23.7 per cent in the fifth plan (1978-83) to 26.1 per cent in the seventh plan (1988-93). This growth has been mainly due to the rapid increase in non-development expenditure (current expenditure) which over the last 15 years has increased from 14.8 per cent of GDP in the fifth plan (1978-83) to 19.4 per cent of GDP in the seventh plan (1988-93). Table 2.3 indicates the growth pattern of non-development and development (capital) expenditure since the fifth plan period.

Table 2.3 **Growth pattern of current and development expenditure** (as a percentage of GDP)

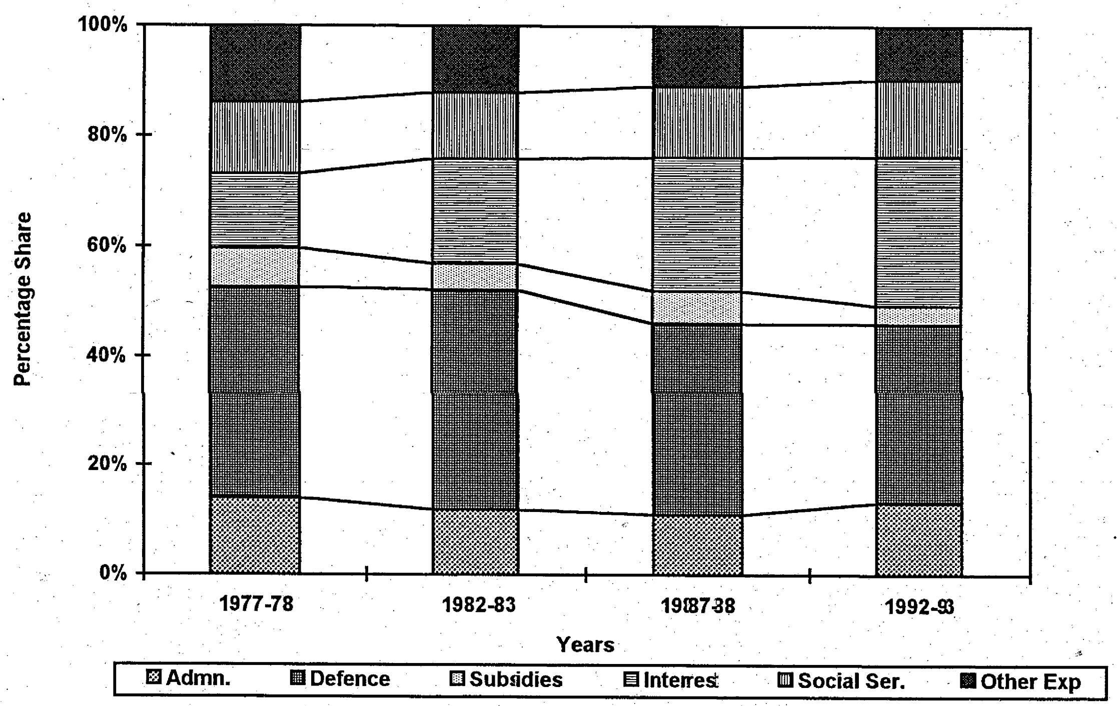
	Fifth plan period (1978-83)	Sixth plan period (1983-88)	Seventh plan period (1988-93)
Total expenditure	23.7	25.8	26.1
Current expenditure	14.8	18.9	19.4
Defence	5.7	6.9	6.5
Interest payments	2.4	4.0	5.2
Subsidies	1.1	1.1	0.9
Government administration	1.9	2.3	2.3
Social services	1.8	2.5	2.7
Other current expenditure	1.9	2.1	1.8
Development expenditure	8.9	6.9	6.7
Memorandum item:			
GDP (current billion rupees)	1392.7	2654.4	5199.6

Sources: Appendix 2.1 and Appendix 2.3.

Current expenditure

The major items of current expenditure are general administration and law and order, defence, community, social and economic services, subsidies and debt-servicing. Most of the increase in current expenditure has been due to increases on defence and debt servicing liabilities. In 1992-93 these claimed approximately 60 per cent of current expenditure (Figure 2.3).

Figure 2.4 **Structure of current expenditure, 1977-78 to 1992-93** (percentage share)



Notes: Admn. = Expenditure on government administration.
Social Ser. = Expenditure on social services.
Other Exp = Other current expenditure.
Sources: Appendix 2.1 and Appendix 2.3.

Pakistan's strategic vulnerability along it's eastern borders has provided justification for the higher defence expenditure (Wilber, 1971:381). Both in terms of GDP (6.5 per cent in 1992-93) and as a proportion of current government expenditure

(33 per cent in 1992-93), defence expenditure has increased substantially and is high compared to the world average and to other countries in the region (Table 2.4).

Table 2.4 **Pakistan's defence expenditure in comparison to other countries** (annual average 1972-88)

	Defence expenditure as a percentage of	
	Gross domestic product (GDP)	Government expenditure
- World	3.8	15.5
- Industrial countries	4.0	15.6
- Developing countries	3.0	14.6
- Asia	3.5	18.4
- Middle East	7.2	25.3
- Europe	3.6	19.3
- Western Hemisphere	1.3	6.5
Selected countries in the region		
. Bangladesh	1.1	10.3
. India	3.0	19.2
. Indonesia	2.7	12.5
. Nepal	0.9	6.5
. **Pakistan**	**6.0**	**33.0**
. Philippines	2.1	19.2
. Sri Lanka	1.2	3.8
. Thailand	3.6	19.7

Sources: IMF, 1992. *Government Finance Statistics Yearbook 1992*, Washington, DC: International Monetary Fund.
Government of Pakistan, 1992. *Pakistan Economic Survey 1991-92*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.
United States Arms Control and Disarmament Agency, 1990. *World Military Expenditures and Arms Transfers*, Washington, DC: United States Arms Control and Disarmament Agency.

Development expenditure

The share of development expenditure in total expenditure has been declining gradually. In 1977-78 it was approximately 41 per cent of total expenditure or 9.7 per cent of GDP (Appendix 2.1). In 1992-93 it has fallen to approximately 25 per cent of total expenditure and 6.4 per cent of GDP (Appendix 2.3). Since 1982-83, the most rapidly growing sectoral component of this expenditure has been energy. The growing socio-political tension resulting from long-hours of power load-shedding forced the government to give priority to development of power infrastructure. In 1992-93, approximately 39 per cent of development expenditure allocations were made to the energy sector (Table 2.5).

Table 2.5 **Public sector development outlays: sectoral shifts** (percentage share)

	1982-83	1987-88	1992-93
Agriculture and water	24.5	17.2	9.9
Energy[1]	23.4	31.0	38.7
Industry	10.8	0.8	1.8
Transport and communications	16.9	12.9	29.6
Physical planning and housing	7.4	11.6	4.3
Education	5.2	8.3	4.5
Health	4.2	5.9	1.8
Other social sectors[2]	4.3	7.4	5.5
Miscellaneous sectors	3.3	4.9	3.9
Total:	100.0	100.0	100.0

Notes: [1]Includes power, fuels and minerals sectors.
[2]Includes population planning, social welfare, rural development.

Sources: Government of Pakistan, 1986. *Pakistan Economic Survey 1985-86*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.
Government of Pakistan, 1994. *Pakistan Economic Survey 1993-94*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.

The high priority attached to the energy sector, however, has undermined the development of the social sectors. In 1992-93, only 12 per cent of development expenditure allocations were made for social sector programs. The most affected sectors were education and health. Allocations for the education sector have fallen from 8.3 per cent in 1987-88 to 4.5 per cent in 1992-93. The health sector's share in the development budget has been reduced from 5.9 per cent to 1.8 per cent over the same period (Table 2.5). Table 2.6 indicates that provision of public services at 7 per cent of GDP and expenditure on social services at 3 per cent of GDP in 1988 compares very unfavourably with the majority of low-income, lower-middle income and upper-middle income countries.

Table 2.6 **Government expenditure in selected countries** (as percentage of GDP)

	Total[1]			Public Services[2]			Social Services[3]		
	1973	1980	1991	1973	1980	1991	1973	1980	1991
Low-income countries									
India	20[4]	25	31	5[4]	5	6	4[4]	6	8
Kenya	23	28	30	6	9	8	9	9	10
Pakistan	20	23	26	8	7	7	2	3	5
Sri Lanka	26	42	30	4	5	6	11	11	10
Indonesia	21	27	21	5	11	8	4	4	4
Lower-middle income countries									
Philippines	16	17	22	3	5	5	4	4	6
Papua New Guinea	39[5]	34	38	8[5]	11	8	11[5]	10	11
Thailand	17	21	17	5	6	5	5	7	6
Upper-middle income economies									
Mexico	13	18	25	2	4	2	6	7	6
Uruguay	25	26	36	7	6	7	14	17	23
High-income economies									
Singapore	16	20	22	7	7	8	5	6	8
New Zealand	31	44	47	5	6	6	19	27	30
Belgium	46	59	56	6	8	6	28	37	34
United Kingdom	46	52	52	10	11	11	23	27	27
Australia	32	40	45	6	6	8	14	21	24
Germany	51	54	53	8	7	7	32	35	35
United States of America	27	31	35	7	6	8	15	17	18
Canada	47	42	44	6	5	6	26	24	24

Notes: [1]Consolidated central government and sub-level governments, including central government transfers to sub-level governments.
[2]Public services includes, general public services, defence, public order and safety.
[3]Social services include, education, health, social security and welfare, housing and community amenities, recreation, cultural and religious affairs.
[4]1974. [5]1975.

Sources: Asian Development Bank, 1988. Country Reports on Financing Public Sector Development Expenditure in Selected Countries (Thailand, Philippines, Indonesia, India and Pakistan), Manila: Economic Office, Asian Development Bank.
Asia Pacific Economics Group, 1993. *Asia-Pacific Profiles 1993*, Canberra: The Australian National University.
IMF, 1978. *Government Finance Statistics Yearbook 1978*, Washington, DC: International Monetary Fund.
IMF, 1985. *Government Finance Statistics Yearbook 1985*, Washington, DC: International Monetary Fund.
IMF, 1993a. *Government Finance Statistics Yearbook 1993*, Washington, DC: International Monetary Fund.
IMF, 1994. *International Financial Statistics Yearbook 1994*, Washington, DC: International Monetary Fund.
OECD, 1993c. *Revenue Statistics of OECD Member Countries 1965-1992*, Paris: OECD.

Public sector borrowing requirements (PSBR)

Deterioration in the fiscal situation has resulted in rapid accumulation of outstanding domestic and external debt. Outstanding debt which was 61 per cent of GDP at the end of the fifth plan period (1983) increased to 79 per cent of GDP by the end of the seventh plan period (1993) (Table 2.7). Consequently, debt servicing liability has increased substantially, claiming 5.6 per cent of GDP in 1992-93.

Table 2.7 **Outstanding debt and debt servicing liability, 1983 to 1993** (as a percentage of GDP)

	End of fifth plan period (1982-83)	End of sixth plan period (1987-88)	End of seventh plan period (1992-93)
A. Outstanding debt			
Total	61.1	77.0	78.5
Domestic	28.6	43.3	44.5
External	32.5	33.7	34.0
B. Interest payments	3.0	4.8	5.6
Domestic	1.8	3.6	4.4
External	1.2	1.2	1.2
Memorandum item:			
GDP (current billion rupees)	364.4	675.4	1342.0

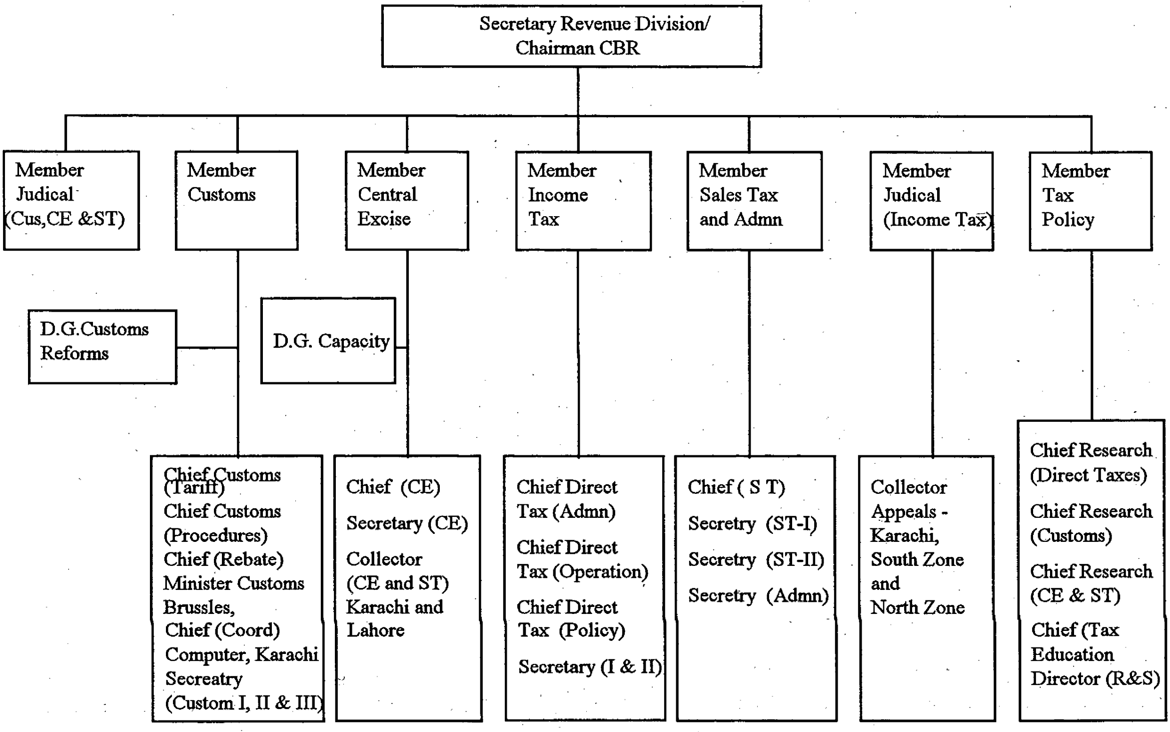
Sources: State Bank of Pakistan, 1985. *Annual Report 1984-85*, Karachi: State Bank of Pakistan.
Government of Pakistan, 1994. *Pakistan Economic Survey 1993-94*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.
Appendix 2.1 and Appendix 2.3.

Tax administration structure

Tax administration in Pakistan is based on laws governing the allocation of revenues and expenditures between various level of governments. Federal government collects 95 per cent of consolidated taxes, including the taxes shared between the central and provincial governments (Appendix 2.5). The provincial governments collect less than five per cent of total taxes. The administrative set-up, therefore, varies according to the responsibility of tax collection at the various level of governments.

The federal Revenue Division/Central Board of Revenue (CBR) administers all major taxes through an established network. The provincial governments administer taxes through their finance and excise and taxation departments. Figure 2.5 below presents the organisational structure of the Revenue Division.

Figure 2.5 **Organisational structure of the Revenue Division**



Notes: CBR= Central Board of Revenue, Cus= Customs, CE= Central excise, ST= Sales tax, Admn= Administration, D.G= Director General, Coord= Coordination, R&S= Research and Statistics.
Source: Revenue Division, 1993. *CBR Yearbook 1991-92*, Revenue Division, Central Board of Revenue, Islamabad: Government of Pakistan:7.

Tax administration in Pakistan is complex, involving approvals, checks and counter-checks. The cumbersome procedures have created many problems. First, much of staff time is spent on tax assessment and, as a result, survey and identification of new taxpayers has suffered. Second, the system has given rise to frequent litigation, partly as a tax postponement device to take advantage of the long drawn-out tax appeal procedures. Finally, centralised control by one agency has caused an ineffective and, in fact, spurious form of coordination (NTRC, 1986:13). Despite carefully conceived tax laws and efforts to build an efficient administrative machinery, tax administration has weakened over time.

Administrative constraints

The tax administration system suffers from many constraints. Lack of adequate infrastructure, low levels of skill, and lack of motivation and administrative commitment have had an extremely negative effect on the development of an efficient administrative machinery (Khan. A, 1992:1133). Further, lack of an appropriate data base and absence of automated systems have weakened the smooth operation of the tax agency. Some of the factors responsible for the weaknesses are briefly discussed below.

Administrative powers

Tax officers have substantial powers in matters of tax assessment and collection. These powers enable them to ask a taxpayer to attend the tax office and produce accounts and documents to support his/her returns, to impose penalties for failing to pay tax when due, to enter and search business premises and to impound business records. This process leads to harassment, delays, financial disadvantage and even personal indignities (NTRC, 1986:11), and undermines taxpayers' confidence in the tax administration. The tax administration structure has proved limited in its effectiveness to minimise corruption among officials. The wide-ranging powers available to the tax collection officers encourage officers to solicit handouts from taxpayers (NTRC, 1986:11).

Staff numbers

Tax administration is deficient in staff, while the existing staff suffer from poor morale. The available staff is not sufficient to effectively perform various functions, particularly the timely assessment of tax returns and investigation. The vulnerable nature of service careers also adversely effects the tax department's ability to attract motivated personnel in adequate numbers.

Poor training facilities

Tax administrators form the linchpin of the tax system. They are responsible for making assessments, collecting information, investigating concealment, and recovering tax payments. Organisation of these activities along modern lines requires officials to be trained regularly through short and long-term courses. The only training provided to tax officers consists of an initial 9-12 month-long course upon entry, and a few short courses to personnel below the rank of tax officer. A shortage of properly trained tax technicians and administrators, to deal with modern taxation issues, has limited the speed of tax policy execution (Coopers and Lybrand, 1989:3.38).

Lack of research capacity

Research capacity on fiscal issues within the CBR is non-existent. The Research and Statistics Department of the CBR is used for compiling statistical data and is not involved in policy issues. Changes in tax policy are frequent, and policies are implemented without proper analysis. In 1992 , the Revenue Division was established to address tax policy issues, such as enforcement of tax laws and the impact of various taxes on the economy. However, the new Division has so far not mobilised to deal with aspects of tax policy other than revenue generation issues.

Conclusions

Much of the explanation for poor resource mobilisation in Pakistan can be traced to the structure of its taxation system. The system is primarily motivated towards mobilising revenues, yet it has failed to achieve this objective. Growth of current expenditure and the gradual reduction in development expenditure has severely undermined the growth of "nation building" activities. Increased public sector borrowing requirements have given rise to an increased debt stock, and servicing of debt alone claims more than one-fifth of total revenues. The structure of tax exemptions and incentives has resulted in poor tax compliance, inflicted tax administration and distorted resource base. Administrative constraints such as lack of necessary infrastructure, low level of skills, lack of motivation, lack of administrative commitment, and corrupt practices have had an adverse impact on the effectiveness of the tax agency.

3

Policy Options for Resource Mobilisation

Pakistan's fiscal system is incompatible with the needs of a developing society. Past efforts to mobilise domestic resources to satisfy the needs of a growing economy have faltered because of the built-in inflexibility of a system that is the result of years of ill-conceived and contradictory policies. Deterioration in government revenue, rapidly growing government expenditure and heavy losses in public sector enterprises have contributed to chronic deficiencies in the fiscal system. Many changes, additions, modifications and amendments made in an attempt to improve the system have further aggravated the fiscal base. An analysis of developed and developing countries' taxation systems shows that in the last 20 years taxes have gone up world-wide, as a proportion of total income. During the 1980s, now considered the decade of tax reform, a majority of countries introduced comprehensive reform of medium and long-term fiscal policies, with consideration for structural issues, growth, inflation, the provision of public goods and income distribution. Many governments reduced the tax burden on incomes by shifting to broad-based consumption taxes. Efforts were made to harmonise the tax structure through the adoption of a uniform taxation system (Khalilzadeh and Shah, 1991:xvi). In this process, tax bases were broadened through the rationalisation of tax incentives and tax rates. For example, between 1972 and 1990 the tax base has widened in Indonesia, the Philippines, Thailand, South Korea, Sri Lanka, India, Malaysia and Singapore (Taylor, 1993:4; Azis, 1994:385), whereas Pakistan's position in world tax ranking deteriorated from 55th in 1972 to 69th in 1990 (*Asiaweek*, 1993:15). Many factors have contributed to this weakness. The strategy of lavish legal and administrative provisions for incentives and tax exemptions to attract foreign and domestic investment led to massive tax evasion, corruption, and development of a large informal sector without any corresponding increase in investment (Gersovitz, 1987: 615; Shah and Toye, 1990:156).

Policy options

Since the 1980s, various studies and reviews have argued the need for comprehensive reform of the fiscal system through budgetary stringency and strong restraints on public spending to reduce the budget deficit as a percentage of GDP (NTRC, 1986:6; Ahmad and Stern, 1987:2; Peat Marwick, 1988:I-5; Coopers & Lybrand, 1989:4-3; UNDP, 1991a:206). This chapter analyses various options for strengthening the government's financial position by considering two possibilities one under the *status quo* policy scenario and the other under the *adjustment* policy scenario.

The *status quo* policy scenario (unchanged policy case)

The *status quo* policy scenario assumes the continuation of past budgetary trends and unchanged policies in respect to government revenue (tax and non-tax) and government expenditure (non-development and development). The implicit assumption is that in the present domestic and regional socio-political situation it will be difficult for the government to undertake major fiscal reforms. Projections under this scenario show that the consequences of avoiding fiscal reform (maintaining revenue and expenditure at current levels of GDP) would be grim. The fiscal deficit is projected to increase from 8 per cent of GDP in 1992-93 to 10.4 per cent of GDP by 1997-98 (Table 7.1).

The availability of resources for financing deficits of a large magnitude (approximately 10 per cent of GDP) from domestic non-inflationary and external sources is doubtful. The external economic environment, particularly of industrialised countries in the post-cold war period is such that it would be difficult for the government to mobilise foreign resources in amounts exceeding the present level (1.8 per cent of GDP in 1992-93). Further, the present policy of relying heavily on bank borrowing (4.7 per cent of GDP in 1992-93), could not be relied upon over the medium or longer term because of its deleterious effects on the economy. Under these circumstances the government would have no option but to rely heavily on non-bank domestic sources, that is, to use private sector savings that are expected to increase from 1.5 per cent of GDP in 1992-93 to 6.6 per cent of GDP in 1997-98 (Appendix 7.1). Under this scenario the outstanding public debt – which is already large (about 79 per cent of GDP in 1992-93) will substantially build-up (with its associated interest burden). The foregoing analysis suggests that this scenario is not sustainable.

The *adjustment* policy scenario (feasible policy case)

Given the nature of the budgetary problems confronting Pakistan the government need to either reduce its expenditure, particularly on defence, debt servicing, subsidies and government administration, or in the alternative, restructure its tax system to seek higher revenue and/ or to improve the revenue elasticity and buoyancy of the tax structure. In many countries fiscal correction has been achieved through taxation and expenditure-control measures (Nashashibi *et al.* 1992:8). Some of these countries include Colombia (Musgrave and Gillis, 1971; McLure and Zodrow, 1991), Republic of Korea (Choi, 1990a), Turkey (Bulutoglu and Thirsk, 1991), Indonesia, (Gillis, 1990a; Asher, 1990) and Malawi (Shalizi and Thirsk, 1991).

Primarily, in these countries tax reforms were geared towards improving the resource position. These were also aimed at eliminating the disincentive effects of high tax rates on incomes and cascading effect taxes on domestic production and distribution. In Pakistan, it is just as important to reduce budget deficits by increasing government revenue, as it is to control the growth of non-productive expenditure.

In Pakistan the primary objective of the fiscal policy should be to improve the government's financial position by increasing government revenue and reducing expenditure as far as prudently possible. The *adjustment* policy scenario assumes that the *status quo* policy option is not sustainable. The growing fiscal deficits are not sustainable, have adverse, medium-term consequences for domestic financial stability and the balance of payments, and are likely to lead to a rapid accumulation of domestic and external debt stock and its servicing liability (Manasan, 1988:1). The *adjustment* policy scenario looks into major fiscal issues faced by the government and suggests possible policy directions and strategies to address these issues (Table 3.1).

Table 3.1 **Policy matrix for *adjustment* policy scenario**

Policy targets	Policy direction	Strategies and measures
1. Overall fiscal deficit	Achieve a reduction in the overall fiscal deficit/GDP ratio to 5 per cent by the year 2000.	1.1 Expand tax base. 1.2 Reduce non-development expenditure. 1.3 Strengthen public sector management. 1.4 Reform public sector enterprises. 1.5 Strengthen tax administration.
2. Government revenue	Achieve an increase in the revenue/GDP ratio to about 20 per cent by year 2000 by fostering domestic resource mobilisation. efforts.	Implement a tax reform directed at expanding the tax base and increasing the tax elasticity and tightening tax administration. - eliminate most tax exemptions and incentives. - impose a tax on

Policy targets	Policy direction	Strategies and measures
		agricultural incomes. - implement a broad-based consumption tax.
3. Government expenditure	1. Contain expenditure growth, to 25 per cent of GDP by year 2000. 2. Increase effectiveness of expenditure control and monitoring. 3. Improve technical and administrative efficiency of public institutions.	Rationalise government expenditure. - assess the cost-benefit of defence expenditure with a view to reduce it. - reduce expenditure on civil service. - reduce implicit and explicit subsidies. - implement tightened expenditure control procedures.
4. Weak budget management system	Strengthen and restructure budget sector management.	1. Establish budget and planning units in all ministries/departments. 2. Extend budgetary practices, reporting standards and expenditure control procedures. 3. Introduce mid-term fiscal planning to coordinate budget formulation, expenditure control, auditing and expenditure privatisation and program analysis activities in a systematic framework.
5. Poorly performing public sector enterprises	Privatise most of the public sector enterprises.	1. Divest partially or fully certain public sector enterprises. 2. Institute complete autonomy and accountability in the management of public sector enterprises.
6. Weak tax administration	Strengthen and restructure tax administration.	1. Improve institutional framework. 2. Improve policy making and implementation capacity of the tax administration at all levels. 3. Strengthen the operational control. 4. Resolve overlapping responsibilities between

various organisational functions.

5. Overcome scarcity of qualified personnel through training and seminars on various aspects of tax administration, implementation and control issues.

Broadening the tax base

The decline in the relative contribution of taxes in Pakistan, particularly tax on incomes, is mainly due to tax exemptions and other policies providing incentives to individuals, organisations and institutions to condition their behaviour in one way or another. The full costs of these "incentive" policies – direct payments (grants and loans), tax exemptions and allowances, preferential prices (including for credit) – are not known. But the extent and coverage of these incentives indicates that the cost is substantial. These incentives are one of the root causes of inefficiency in the taxation system – no societal group is taxed according to its ability to pay. Unless all the major exemptions are withdrawn, revenue generated by taxation is unlikely to go up. It is not the intention here to discuss all exemptions and incentives granted by the government. However, one of the major exemptions that has distorted the entire taxation structure, the exemption of agricultural income from the tax system is discussed briefly.

Tax on agricultural income. Tax on agricultural incomes has been the subject of substantial controversy in the Indo-Pakistan sub-continent. During the Mughal period, landlords as agents of kings collected land revenue as land rent on the basis of per acre production (Habib, 1982:235-240). During the British period the fixed land rent was the major source of government revenue (Kumar and Desai, 1982:928). This source of revenue fell with the weakening of British power in the sub-continent from 53 per cent of total taxes in 1900-01 to 7 per cent in 1946-47 (Table 3.2). The revenue collected during the Mughal and the British administrations was not a tax on agricultural incomes as conventionally understood, but a graduated surcharge on land revenue with a high exemption limit and low rates (Qureshi, 1987:159). In fact, taxes on agricultural income in areas which now constitute Pakistan never achieved a prominent position in federal or provincial budgets. Many factors contributed to this, including political influence, high administrative costs of collection, and assessment of tax which combined to bring small assessments into the tax net (Kumar and Desai, 1982:924).

Table 3.2 **Consolidated[1] government revenue** (selected years 1900-1 to 1946-7)

Years	Total tax collection (million rupees)	Percentage of total tax revenue				
		Land	Customs[2]	Excise	Income	Others
1900-1	575	53	9	10	3	25
1917-8	914	36	18	17	10	19
1921-2	1269	27	30	14	15	15
1930-1	1310	23	36	13	12	16
1940-1	1424	19	28	16	19	18
1946-7	4420	7	22	22	37	11

Notes: [1]Central and provincial governments.
[2]A small amount of provincial income tax is included in customs.

Source: Kumar, D. 1982. 'The Fiscal System' in D. Kumar and M. Desai (eds), *The Cambridge Economic History of India*, Volume 2 (1757-1970), Cambridge: Cambridge University Press:Table 12.7:929.

A number of expert committees and studies have examined the possibility of introducing a direct tax on farm incomes. These studies have covered almost the whole field of agricultural taxation, including the feasibility of extending the general income tax law to agricultural incomes. Most of the studies undertaken during the 1960s and the 1970s maintained that the agriculture sector was already under heavy implicit and explicit taxes through hidden transfers, such as low priced raw materials for industrial production, subsidised food for the industrial work-force, an over-valued exchange rate, open taxes in the form of export duties, and profits of the government monopoly trading corporations and therefore the agriculture sector was not capable of bearing the burden of additional taxation (Hornby, 1968:105; Dixit, 1971:385; Azher, 1973:83; Newbery, 1974:38; Newbery, 1987b:367-370; Qureshi, 1987:159; NCA, 1988:529). These studies concluded that extending income tax laws to agricultural income would not be a productive source of additional revenue for the government (Joshi *et al.* 1968:329; Ahmad and Stern, 1991:253) and if a tax was imposed its yield would be negligible and its effect would be harmful to the sector's productive capacity (LUMS, 1986:63; NCA, 1988:536). Studies undertaken in the 1980s pointed out that although the vast majority of people engaged in agriculture were living below the subsistence level, a number enjoyed large incomes. Since their income is exempt from tax these landlords live luxurious lives and have made substantial investments in city real estate, creating a situation of antagonism among the trading and industrial classes as well as the professional class who are forced to pay income tax. This antagonism has discouraged tax compliance and provided strong incentives for tax evasion among business and professional income tax payers (Hamid, 1970:438; NTRC, 1986:134; NCA, 1988:530; Coopers & Lybrand; 1989:3.8).

The strongest opposition to a tax on agriculture income in Pakistan comes mainly from the influential lobby of well-to-do land owners who have so far effectively used their legislative and administrative power to block any policy aimed at taxing agricultural income. Their political influence has been apparent in the legislative assemblies from the beginning of Pakistan's history and has not diminished (Alam, 1974:26; Qureshi, 1987:181). In federal and provincial elections since 1951, landlords have won 70-80 per cent of the seats. Because of their political influence, there has been no legislation introduced to reform the land tax system or to introduce any formal agricultural income tax (Herring and Chaudhry, 1974:272; Qureshi, 1987:181). In many instances federal government efforts to levy a tax on agricultural income have failed on legal grounds. In 1989, a high-powered Committee of Experts on Taxation of Agricultural Incomes was appointed by the Prime Minister to assess the possibility of implementing a tax on agricultural incomes. This Committee, like other Committees, failed to come to a conclusive resolution because of differences of opinion among its members (mostly agriculturists). The Committee observed that under the Constitution of Pakistan taxation of agricultural incomes is a provincial subject and, therefore, it is not legally proper to levy a tax on agricultural incomes through federal legislation without a Constitutional amendment (CCEP, 1989:6).

Since the early 1980s there has been an increasing resource flow into agriculture and a declining trend in the concealed tax burden on agriculture, resulting in increased agricultural incomes (Qureshi, 1987:167). Domestic agricultural prices are now closely aligned to world prices. In this environment, agriculturists are making large profits. On efficiency and equity grounds, therefore, there appears to be little justification for exempting agricultural incomes from tax. According to the 1980 Agriculture Census report, about 77 per cent of the ownership holdings in Pakistan - claiming 41 per cent of cultivatable area - is 12.5 acres or less (the basic exemption level in the case of irrigated area that could be exempted for distributive and administrative reasons). Thus, only 23 per cent of ownership holdings, covering 59 per cent of the operational cultivated area (Table 3.3), would come into the tax net, if a tax on agricultural income is introduced (Agriculture Census Organisation, 1980:2; Ahmad and Stern, 1991:258).

Table 3.3 **Land distribution and potential tax base**

Acres	Ownership Holdings No. (%)	Ownership Holdings Area (%)	Operational Holdings No. of Farms (%)	Operational Holdings Area (%)	Operational Holdings Cultivated (%)	Taxable Base@ Nos.'000 (acres)	Taxable Base@ Av. Holding (acres)	Taxable Base@ Total area '000 acres	Taxable base '000 acres
Under 1.0	8	Ω	5	Ω	Ω	-	-	-	-
1.0- < 2.5	19	3	13	2	2	-	-	-	-
2.5- < 5.0	20	6	17	5	6	-	-	-	-
5.0- < 7.5	15	7	17	9	10	-	-	-	-
7.5- < 12.5	15	12	23	19	21	-	-	-	-
12.5-< 25.0	13	19	17	25	26	492.7	17.12	8436	2276.3
25.0-< 50.0	6	17	6	18	18	227.4	33.2	7548	4707.2
50.0-<150.0	3	20	2	15	13	113.7	78.1	8880	7458.7
150 and above	1	17	Ω	9	6	37.9	199.2	7548	7075.9
	100	100	100	100	100	871.7		32412	21518.1
	(3.79m)	(44.4m acres)	(4.07 m)	(47.1m acres)	(39.2m acres)				

Notes: m = million.
Ωless than 0.5 per cent.
@taxable base determined with an exemption level of 12.5 acres.
-Zero.

Source: Agriculture Census Organisation, 1980. *Agriculture Census 1980–All Pakistan Report*, Agriculture Census Organisation, Lahore: Government of Pakistan:Table 1.2:2; Table 3.1:11; Table 12.1:70.

Various methods have been proposed to introduce a tax on agricultural incomes on the above basis, such as extension of existing income tax laws (NTRC, 1986:160; Mohammad, 1987:424-425) or land tax levied on potential yields with a simple rate structure (Qureshi, 1987:12; NCA, 1988:537; Ahmad and Stern, 1991:255-259). Under both methods, the agriculture sector has an income tax potential of about 3-8 billion rupees (World Bank, 1987:26; Ahmad and Stern, 1987:43; Coopers & Lybrand, 1989:5-28; Nasim and Mukhtar, 1991:11). Thus, a proper policy to tax agricultural income would not only increase government revenue but also close many loopholes that facilitate tax evasion.

Expenditure control measures

Studies on the pattern of public expenditure based on time series and cross section data suggest that in developing countries public expenditure rises quickly as a by-product of development and as an instrument of growth (Williamson, 1961:53; Thorn, 1967:19; Martin and Lewis, 1972:73). In Pakistan, over time, the size and structure of public expenditure has changed significantly. Government expenditure in terms of GDP increased from approximately 24 per cent in 1977-78 to about 26 per cent in 1992-93. During this period non-development expenditure grew at a much faster rate, from 14.2 per cent of GDP in 1977-78 to 19.8 per cent in 1992-93, whereas the development expenditure as a proportion of GDP, 10.5 per cent in 1978-79, declined to 6.4 per cent in 1992-93 (Appendix 2.1 and Appendix 2.3).

In the existing situation, without a sizeable reduction in non-productive public expenditure, the government is likely to face the following risks: (i) deterioration in the financial position of the government; (ii) rising debt service liability; (iii) crowding out of private sector activities; and (iv) pressure on the real exchange rate which among other things would hinder Pakistan's export-led growth strategy. The experience of other developing countries show significant scope for reduction of government expenditure, if the right policies are adopted. Countries like Benin, Bolivia, Gambia, Ghana, Kenya, Madagascar and Sri Lanka significantly improved public resources by cutting wasteful spending (Nashashibi *et al.* 1992:28; Ramakrishanan, 1992:10). Similarly, in Pakistan, expenditure savings can be achieved by reducing "non-productive" expenditure, such as prestige projects, subsidies that are not well targeted, trimming an excessively large civil service and containing the growth of defence expenditure in real terms.

The growth of defence expenditure in Pakistan over the last few years has been discussed extensively. There is widespread recognition that excessive defence spending drains the country's economy by moving resources away from important development issues. A number of authors have pointed out that defence spending in America has damaged their competitiveness and that expenditure in Britain has had a negative impact on the economy and has contributed to its decline (Poole and Bernard, 1992:438; DiFilippo, 1990:21). These arguments, however have in many cases not been well substantiated. In the international scene, there is no good evidence to show that defence spending always hurts the economy (Looney, 1990:4). The Pacific Rim experience has been entirely different. Taiwan has maintained one of the heaviest defence "burdens" while maintaining one of the fastest economic growth rates (Chand and Mintz, 1992:11). In North Korea, increase in export of major conventional weapons from 155 million US dollars in 1988 to 313 million US dollars in 1992 (SIPRI, 1993:444) had positive spin-offs in civilian industry. Singapore developed an effective arms export industry by maintaining significant expenditure on defence. Similarly, China now accounts for eight per cent of the world deliveries of major conventional weapons (SIPRI, 1993:452).

Defence expenditure in Pakistan, influenced by international, regional and domestic political events, however, has created many budgetary problems. It would be difficult to argue that a country the size of Pakistan, should have a defence budget the size of a country as large as India. However, two wars within a decade (1965 and 1971) and a continued threat to the country's sovereignty has forced Pakistan to prepare itself for any untoward threat to its territorial security, by building military capabilities. Given the state of military and domestic politics in the region, it is unlikely that there will be any decrease in defence expenditure in the near future. Events in Kashmir (Girilal, 1976:57-58), the proliferation of nuclear weapons (United States Department of Defence, 1989:124), delineation of the border at Siachen in

Kashmir, and India's continued efforts in recent years to develop the relative military strength to become an influential regional player (Tomar, 1989: FA39; Coply, 1989:6) are the basic regional issues. Until a settlement is reached, the chances of controlling military expenditure in Pakistan are slim.

Public expenditure management. Public expenditure reform in Pakistan is difficult to accomplish because of a lack of adequate institutional capacity. The government finds it extremely difficult to control the rate of growth of public expenditure, even under very restrictive fiscal conditions. The lack of control over expenditure is the most important factor contributing to large fiscal deficits. Effective expenditure management requires the institutionalisation of the expenditure control mechanism. The weak institutional capacity of the implementing ministries/departments leads to ineffective and delayed implementation and wastage of scarce resources. Often the assumed linkage between the budget and various other activities has not reflected priorities set by the budget, for the economy as a whole, or within a given sector. Although the government in recent years has taken some steps towards improving the fiscal balance, large efforts are required on the current expenditure side. These include: (i) establishing strong linkages between macro-economic conditions and public expenditure within the budget process; (ii) establishing institutional capacity to direct macro-economic fiscal objectives toward specific targets; and (iii) securing system-wide acceptance of these targets.

The key to imposing public expenditure management lies in an efficient and effective coordinated operation between government agencies, legislators and other interest groups at the federal, provincial and local government levels. This strategy would require revision of the existing mechanism of isolated decision-making and policy implementation. To overcome the problem it is necessary that public sector expenditure be monitored and controlled from the very beginning. Establishment planning units in each Ministry/ department would effectively help to monitor and control public expenditure. Similarly, a medium-term rolling plan (on at least a three year basis) could assist the government to coordinate various expenditure demands and allocations. The Medium-Term Fiscal Strategy (MTFS) which has successfully been used in many countries can be a feasible option for the government to coordinate micro and macro activities related to the budget, investment levels; the balance of payments and the financial sector.

Medium term fiscal strategy (MTFS)

In many countries the Medium-Term Fiscal Strategy (MTFS) has been adopted as an important element in the process of reform. The MTFS framework helps to improve the overall fiscal situation, by adjusting government expenditure according to available resources. The benefit of this strategy is that the government can avoid most drawbacks associated with the policy of a reduction of expenditure across the board that in the past led to serious misapplication of scarce resources. The experience of countries such as United Kingdom (United Kingdom, 1985:34) shows that a prioritized expenditure planning within the framework of MTFS greatly facilitates the process of allocating resources, and is useful in guiding budgetary cuts in any eventuality.

The main contribution of the MTFS would be a detailed analysis and approval of the expenditure plans of various spending units. The aim would be to evaluate expenditure against objectives, in a medium term framework (normally three years).

Such review would also allow the opportunity to examine development and recurring expenditure together, and thereby mitigate the deleterious effects of the present system where the two are completely divorced. A second benefit would be a general agreement between policy makers, legislators and other agents on indicative targets for three years, in relation to expenditure plans, tax, pricing policies, and external and domestic borrowing (including deficit financing). A major advantage of such a plan would be that budget making would be spread out over the year as a continuous process, in which the executive and the legislature would be involved. This would substantially reduce the risks inherent in the present system, where all major budgetary decisions are made in a few days.

Privatisation of public enterprises

In many countries privatisation and restructuring of public sector enterprises has improved socio-economic conditions, promoted economic development and created a congenial investment climate (Kuria, 1992:27). On the basis of these benefits, many privatisation proponents argue that the potential efficiency gains associated with private ownership are so large that the benefits would be felt in the country's socio-economic development from the very beginning (Vickers and Harrow: 1988:55; Hemming, 1992:84; Cheasty, 1992:54). The opponents of the privatisation program, on the other hand, argue that privatisation of public enterprises is not an efficient way to overcome budgetary crises (Peters, 1991:136). They argue that the private sector can be as inefficient as the public sector and might not be a suitable source of budget financing (Korani, 1990: 139; Chelminski, 1992:4). According to this line of argument the budget needs to be reformed properly by removing impediments associated with its imbalance, before revenue from the privatisation program can be realised. Cheasty

(1992:54), Veljanovski, (1987:10); and Naqvi and Kemal (1991:119) argued that uncertain revenues associated with privatisation programs are not in line with the established norms of budget management. There is empirical evidence to show that changing the locus of ownership from public to private is not a sufficient condition for improvement in fiscal management (Naqvi and Kemal, 1991:107; Bollard, 1994:75; Krueger, 1994:211).

In Pakistan, the size of the public sector industrial undertakings and their operational performance – the rate of return on equity and on capital employed (approximately eight per cent) has been substantially below the opportunity cost of capital (Kardar, 1994:1). Government strategy to protect these undertakings through implicit and explicit budgetary transfers (subsidy) has claimed substantial budgetary resources. Out of 118 public sector industrial enterprises in 1991, only 8 units were making reasonably good profits, 16 units were earning moderate profits, while the remaining 94 units were incurring losses (Government of Pakistan, 1991a:2-3; EAC, 1992:5). There is general consensus among authors, that the government may off-load those undertakings that run on a purely commercial basis (Hemmings, 1992:81). In Pakistan, public enterprises such as cement, vegetable ghee, sugar and textile industries, airlines and railways are public sector entities running purely on a commercial basis, so there is no economic justification for keeping them in the public sector. Off-loading these entities would help the government to improve its budgetary position.

Pakistan's privatisation program of selling 118 state-owned enterprises has not been very successful due to a number of factors (Government of Pakistan, 1991a:1; Kardar, 1994:1). First, the objectives of privatisation are not clear (whether the purpose of the program has been to mobilise resources or reduce the burden on the budget or improve allocative efficiency). Second, the government placed the highest priority on selling unprofitable parastals, which did not attract buyers and, therefore, hampered the process (Kardar, 1994:7). Third, enterprises offered for sale are seriously overstaffed. There is strong opposition to the privatisation program from the employees of state enterprises on sale. Fear of large scale unemployment – 100,000 out of a total industrial work-force of 4.2 million (*Far Eastern Economic Review*, 1992:42) – united workers' unions against the program. Government policy requiring prospective buyers not to lay off staff for one year has done little to mollify unions. Unions representing employees have sued employers in an attempt to block the sale of many public enterprises. Fourth, a major stumbling block to the program has been establishing a reasonable price. Considerable difficulty has been meet in valuing public enterprises and in finding creditable private sector purchasers with the required capital. Most businessperson's claim that the reserve prices, or minimum acceptable prices set by the government have been set too high. Fifth, government bureaucrats, due to their vested interest as managers of these enterprises emerged as a major source of opposition. The bureaucrats have been loathe to give up their powers and their opportunities for control and promotion. Their resistance has resulted in lengthy delays in the privatisation process. Finally, political uncertainty has influenced the whole program. Privatisation measures introduced by the ruling party have been threatened by the country's major opposition party, claiming that all the decisions would be reviewed if the party returned to power (*Far Eastern Economic Review*, 1992: 44).

It is too early to assess the impact of government's privatisation program. However, government claim that the utilisation of sale proceeds to pay off public debt that could bring about a substantial reduction in the costs of debt servicing, has not been witnessed from the proceeds of 67 of the 118 units privatised by the government by June, 1994 (Table 3.4). The sale of these units neither reduced the level of outstanding debt nor debt servicing liability.

Table 3.4 **Public sector undertakings identified for privatisation and privatised**

Units	Identified	Privatised	Under privatisation
Automobiles	11	7	4
Cement	15	9	6
Chemicals	14	6	8
Fertiliser	7	1	6
Engineering	12	6	6
Vegetable ghee	25	16	9
Roti plants	14	13	1
Rice Mill	8	7	1
Other units	12	2	10
Total	118	67	51

Source: Government of Pakistan, 1994. *Pakistan Economic Survey 1993-94*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.

Strengthening the tax administration

Tax potential in Pakistan is much greater than the amount presently collected. The NTRC (1986) report especially suggested that substantial net gains in revenue could be realised by strengthening tax administration, within a framework of consistent policies, without necessarily changing existing tax rates or introducing a new tax. A policy that strengthened tax administration through comprehensive reorganisation and retraining of tax staff along modern lines could well contribute to an overall improvement in tax collection. Most modern tax administrations are organised on a functional basis (Casanegra *et al.* 1992:130). Organising by functions has at least three advantages. First, it increases productivity by allowing employees to develop special skills with respect to the functions they perform. Second, it provides a system of checks-and-balances whereby one tax official does not handle all the functions of a given taxpayer. For example, China moved to an organisational structure where the audit function is separate from the assessment. Under this system if the tax assessor makes an incorrect assessment, it is likely to be discovered by another tax official when an audit is conducted (Casanegra *et al.* 1992:130). Third, a functional organisation enables the tax department to operate more effectively. For example, if a taxpayer has failed to pay sales tax, income tax and excise duties the collection problem is handled by one individual in the collection section, not by three different officials in three different sections.

In a number of countries, tax administration has been improved through improved training, salaries and conditions of service. For example, Ghana improved the efficiency of its revenue collection by establishing a new revenue bonus for meeting specified revenue targets. Benin, Bolivia and Tanzania introduced special incentive schemes for revenue collectors. Uganda is presently establishing a well-paid revenue collection entity. Benin, Niger and Senegal's tax administration reforms have centred on innovative ways of taxing the informal sector by improving coordination between the treasury and the tax and customs administrations and by combining assessment and collection activities and establishing procedures to limit and reduce exemptions (Nashashibi *et al.* 1992:23). In Senegal, Togo and Indonesia expatriate companies have been contracted to provide additional control over the administration of import duty collection (Gillis, 1990a:231; Burgess and Stern, 1993:801).

In Kenya, tax administration reforms accompanied numerous other initiatives to improve compliance in the system. Special emphasis was placed on providing adequate services by trained persons and other infrastructure facilities (Kuria, 1992:27). In Sri Lanka, the complex tax system has been simplified by implementing specific measures, including improvement in the penalty and appeals system (Government of Sri Lanka, 1991:8; Burgess and Stern, 1993:808). In Tanzania and Niger, measures to correct structural deficiencies in the tax system and its administration have resulted in significant improvements in tax collection (Barlow and Snyder, 1993:1187). In Bolivia and Mozambique, tax administration reforms resulted in a rise in revenue/GDP ratio and allowed better control of government operations, as well as strengthening the efficiency of the government's expenditure program (Nashashibi *et al.* 1992:23-25). Pakistan can benefit from the experience of these countries.

Using the experience of these countries, this section proposes organisational reforms through a combination of strengthening existing units and reorganising new units at the following levels of tax administration: (i) at the Central Board of Revenue (CBR) headquarter; (ii) in the auxiliary organisations; and (iii) throughout the field-level collectorates.

The Central Board of Revenue (apex level). Strengthening of the Central Board of Revenue (CBR) at the apex level could be the first step towards improving tax administration. As stated in chapter 2, under the existing administrative arrangements, the CBR are qualified in a purely mechanical manner to levy, assess and collect taxes but do not have the capacity to evaluate the effects of taxation policies on the budget or the economy. This suggests that the tax policy unit in the CBR should specifically address policy research needs and should be able to contribute to the fiscal policy making process. It is also important that the CBR should be managed by staff well trained on fiscal and administrative issues. The CBR also needs to be organised in such a manner that each important tax unit should be headed by a full time Member of the Revenue Board. The dual function of "Member Sales Tax" and "Member Administration" should be abolished and replaced by creating a new post of Member Administration. Recruitment, supervision and training should be the responsibility of the new Member (Administration).

The Directorate of Research and Statistics. The Directorate of Research and Statistics is a subsidiary organisation of the CBR responsible for compilation, analysis and dissemination of statistical information relating to collection of federal taxes. Tax information received by the Directorate relate to major taxes, such as income tax, customs and excise duties and sales tax. Most of the reports are monthly, barring a few that are daily or fortnightly. Although the number of reports and returns are large, information required for decision making is often not readily available. There are, broadly, two reasons for this. First, information contained in various reports does not get compiled because of a lack of adequately skilled workers in the Directorate. Second, the reports concentrate heavily on revenue collections. For example, the reports do not provide any information on such matters as the number of excise documents, the number of excise assessments broken down by commodity, or the number of persons and firms paying turnover tax, and the classification of the assessments based on their location in the organised and small scale sectors. In addition, there is no information on the amount of duty foregone as a result of several exemptions in the income tax, customs and excise duties and sales tax legislation. This limitation of the Directorate adversely affects sound policy-making processes.

In order to improve the working climate of the Directorate of Research and Statistics, staffing needs to be improved and the Directorate needs to be linked with the main computer network of income tax, customs and excises duties and sales tax departments. This would improve the information flow to the Directorate and would simultaneously reduce its dependence on these departments. It would also enable the Directorate to provide timely information to the policy makers and facilitate better monitoring and tax collection.

Cadre management, personnel and training policy. Another important area that needs attention in tax administration reform relates to the cadre management, personnel and training policy for the incumbents of the tax administration. Effective cadre management requires careful assessment of work force requirements. It calls for a systematic program of training and refresher courses both within and outside Pakistan. It also involves provision of adequate opportunities for the promotion of all cadres, as well as effective utilisation of available resources. A significant proportion of the CBR headquarter and field organisations suffer from limited availability of skilled workers. This demands recruitment and the cutting out of redundant positions in some overstaffed organisations of the CBR so that funds can be utilised to augment areas of administration which need adequate staff support, without calling for substantial additional expenditure. The importance of these matters could be realised if, as recommended above, the CBR has a member exclusively in charge of cadre and personnel management, administration and training.

The experience of countries discussed in this section indicates that administrative reforms take time. New institutional structures cannot be created in months or even in a few years. Therefore any reform proposal will not give immediate results. However, a well-designed strategy that: (i) develops the guidelines for tax administration; (ii) provides a foundation for various administrative functions; and (iii) sets priorities, etc., will help to ensure that progress is made in an organised manner while setbacks and miscalculations are kept to a minimum.

Expansion of the tax base through taxation of consumption

The various policies analysed in this chapter have their merits and demerits. The *status quo* policy case suggests that the continuation of present policies would result in a substantial deterioration in the fiscal management. Recourse to policies discussed under the *adjustment* policy case can be expected to improve the financial and administrative position of the government. Past experience, however, suggests that implementation of these policies will not be easy. A tax on agricultural income has long been debated at various forums, but not introduced because of political resistance. It is not likely that, in the near future, the government will be strong enough to impose a tax on agricultural income. Fiscal arguments in favour of privatisation of public sector corporations are also weak. There is empirical evidence to show that changing the locus of ownership from public to private is not a sufficient condition for improvement in fiscal management.

On the expenditure side, the major benefit from containing the growth of non-development expenditure would come from reducing defence expenditure. However, reducing defence expenditure is dependent on international and regional conditions. In the existing politically polarised climate of the region, it would be difficult for the government to compromise on defence expenditure. Similarly, a reduction of other non-development expenditure, such as subsidies and expenditure on civil administration in a society, where the majority of the population is living near to the subsistence level, cannot be maintained for a long period. Strengthening tax administration is the most desirable option for the government. However, restructuring the administrative set-up along modern lines would need clear policy direction and the reorganisation of the existing structure, simplification of procedures, staff performance evaluation, career planning and a more structured approach to in-service training. This will require time and resources.

On the financial side, the first three options under the *feasible* policy scenario, i.e., a tax on agricultural income, liquidation of public sector enterprises and a reduction of non-development expenditure, would generate some additional revenue but not sufficient funds to reduce the fiscal deficit to levels suggested by the international financial development institutions (less than five per cent of GDP). Imposition of a tax on agricultural income is expected to generate an additional 3-8 billion rupees per annum. Its impact on the total budget deficit, however, would be negligible. Similarly, revenue from the sale of public sector enterprises under the privatisation program will not be very large.

An expenditure control program, excluding cuts of defence expenditure, could be expected to save 10 to 15 billion rupees per annum from subsidies, civil administration and cuts in other non-development expenditure. Like the other two options discussed above, savings from this measure will not be very large - only around one per cent of GDP. Assessment of the financial benefits from the fourth option – improving the administrative set up – is difficult and, therefore, no computation is made. The foregoing analysis indicates that policy measures under the "feasible" policy case, individually or collectively cannot generate the required resources to reduce the budget deficit to around 5 per cent of GDP and, therefore, the government has to look for other options. Other countries' experiences suggest that the government can improve its resource base by moving towards broad-based consumption taxes, such as the value-added tax (VAT).

The Value-added tax (VAT). Recent experiences with comprehensive tax reforms in many countries have been dominated by two common and simple themes: simplification of existing income tax systems; and expansion of consumption-based taxes, usually by adopting some variant of the value-added tax (Gandhi and Mibaljek, 1992:155). VAT's universality and general uniformity, its greater revenue raising potential, and administrative simplicity, has attracted the interest of policy-makers all over the world for a variety of reasons such as budgetary deficit reduction, capital formation, international competitiveness and increased resources for social welfare spending (Manasan and Querubin, 1986:53; Brashares *et al.* 1988:159). The tax has been successfully tested as a replacement of sales and turnover taxes. For example, the European Union (EU) and other European countries adopted the VAT to replace various forms of sales taxes, namely, retail sales tax in Sweden, a manufacturing sales tax in France and Denmark and a turnover tax in Germany and Netherlands (Shoup, 1990:4).

The VAT is a more comprehensive and versatile tax than a single-stage wholesale or retail sales tax and is more product-neutral and factor-neutral than other forms of tax. It enables precise identification of exports so that a country's outgoing goods and services can be left free of tax, while imports are taxed on exactly the same footing as domestically produced commodities (Price Waterhouse, 1986:21; Tait, 1992:205;). Also the VAT is not influenced by the forms or methods by which legitimate business is conducted. Nevertheless, its regressive effects on income distribution are admitted (United States Department of Treasury, 1984:3; Due, 1988:198). In the existing weak budgetary climate, the value-added tax could be a feasible option for the government. The introduction of the VAT could be expected to reduce budgetary deficits considerably and improve Pakistan's position in international forums, as exports would be zero-rated. The tax will improve long run productivity of the taxation system. However, it is recognised that the VAT reform alone cannot offer a long term solution to the problem of the deficit. The government has to take other initiatives to improve the fiscal balance.

Conclusions

The fiscal system of Pakistan is in need of fundamental reform not only because it is raising insufficient revenue but also because it embodies major inequities and inefficiencies and is a hindrance to growth. Major adjustments in expenditure and revenue are needed to assure financial viability in the medium to long term. The long-term goal of a sound fiscal policy should be to finance a substantial portion of budgetary expenditure with domestic resources. The option discussed under the *unchanged policy* case is not feasible because the continuation of existing polices would aggravate the government's financial position. Options discussed under the feasible policy case, however, do have the potential to generate additional revenue and correct many anomalies in the present system. Nevertheless, they individually or collectively cannot reduce the fiscal deficits to the desired level. The value-added tax has been adopted by a number of developed and developing countries and proved a good source of government revenue. The introduction of a value-added tax in Pakistan may be a feasible option for the government to reduce the growing imbalance between government revenue and expenditure. All the reform proposals discussed in this chapter have political and administrative implications. Without political will and administrative motivation, no matter how good a reform package is, it will be vulnerable to manipulation or abuse. Also, there will be political opposition to certain proposals as many reforms benefit some groups and hurt others, but under the present fiscal crisis, the government cannot avoid making such choices.

4

The Value–Added Tax

In a growing economy where government expenditures are increasing, it is difficult for the government to generate adequate revenue from a single tax. In an environment where many taxes are used, it is desirable that the tax system be capable of balancing interactions between various taxes in a manner that has little distortionary effect on efficiency, equity and economic growth. Adam Smith's canons of taxation – certainty (revenue productivity), equity (justice in sharing the tax burden), economy (allocative efficiency), and convenience (simplicity, administrative feasibility) – are basic objectives that a tax system should achieve (Smith, 1860:347).

There is little dispute over how to define the principles of simplicity, certainty and economy. Simplicity is perhaps the most desirable quality of an individual tax and the tax system as a whole. A tax is simple, relative to others, if for each dollar collected, the cost of administration and compliance is small. This is only possible if the assessor and the assessed adequately understand the tax to which they are subjected. Allocative efficiency requires that the resources available for public use be as equal as possible to the resources withdrawn from the private sector: that is, the process by which resources are transferred should involve minimal 'waste'. A good tax system should be flexible and able to adjust to changing requirements. There is little agreement, however, among writers on fiscal matters, about how to bring about an equitable distribution of the tax burden. The two widely known principles of equity: horizontal equity (equal treatment of equals: people with the same income should pay the same tax); and vertical equity (unequal treatment of unequals: persons in unlike circumstances should be treated differently), suggest that the greater the ability to pay, the greater the burden of tax (Musgrave, 1959:160). Many theoretical arguments have been developed on the issue of equity but they have failed to provide a workable solution. For example, Samuelson (1972:496–504) benefit theory which is based on decentralised pricing system for public services, received wide criticism on the grounds that the benefit principle is contrary to the whole philosophy of government welfare activities designed to increase the well-being of the lower income groups (Due, 1954:108; Prest, 1975:121–124; Musgrave, 1986:351). According to the theory the public goods (collective consumption goods) should be charged on the basis of market prices (Samuelson, 1955:355-356). It has been argued that their are public goods (defence, education, health, highways) which cannot be left entirely to market forces. An equal charge will greatly benefit rich people. Also, it is difficult to charge a correct price for public goods because individuals, as well as social groups cannot reveal their true preferences (Margolis, 1955:349; Musgrave, 1986:328). The pricing mechanism of public services on commercial lines would leave serious problems of implementation.

There is no optimal tax system that satisfies all the four criteria discussed above (Seligman, 1925:9–10; Hinrichs, 1966:33; Nimeiri, 1970:13; Peters 1991:1–2). The canon of equity may conflict with neutrality, and both may violate the efficiency in administration or revenue productivity criteria. Thus, every tax has its merits and demerits. Over the last three decades, the patterns of sales taxation throughout the world have undergone tremendous changes. The most significant change has been the widespread introduction of the VAT. The introduction and successful operation of the

VAT in terms of revenue buoyancy, its broad coverage of most goods and services, neutrality, economic benefits and reductions in tax evasion have made the tax popular (Yeh, 1974:72; Burgess and Stern, 1993:778).

The value–added tax

The idea of taxing consumption is very old (Due, 1972:318). The Romans applied a general sales tax on goods sold in markets or by auction. In the Middle Ages, consumption taxes were widely used in Europe, especially in Spain and countries under its influence (OECD, 1993a:2). Consumption taxes were adopted by the English to compensate for the loss of land–based feudal dues, which resulted in the collapse of Crown revenues (Dwyer, 1992:1). Since the seventeenth century almost every country has adopted some form of consumption taxes. In the early 1950s, most Western Europe countries employed multi–stage or single–stage turnover taxes which were levied at each transfer of ownership in the course of production or distribution or both (Federation of British Industry, 1964:12). A consumption tax has been preferred by many writers over other forms of taxes, especially tax on income on efficiency grounds. It has been argued that taxing savings is "unjust" (Mill, 1865:484; Marshall in Pigou, 1925:350–51; Hobbes, 1934:184; Fisher and Fisher, 1942:61; Pigou, 1949:139; Kaldor, 1955:80; Hook and Argy, 1986:155; Bird, 1987b:244; Ahmad and Stern, 1991:79). A broad–based indirect consumption tax is seen as providing a simpler method of raising revenues than other taxes, and it leaves income – which is not consumed – untaxed (Head, 1989:19; Christian and Massa, 1989:xii).

The VAT is generally viewed as the latest in a series of successive improvements that have marked the history of consumption and sales taxation (Goode, 1984:157).

While the VAT can be traced back to 1919 when the German economist Wilhelm von Siemens used the concept of a "*Veredelte Umsatzsteuer*", or "ennobled turnover tax", to replace the German turnover tax (Terra and Kajus, 1991:3; OECD, 1993a:2), one of the earliest proposals to institute a VAT was made by Thomas Adams (1921:528) for the United States in the form of a business tax to substitute the United States corporate income tax. However, worldwide interest in the VAT as a stable source of government revenues began with the Shoup Mission's recommendation in 1949 for its introduction in Japanese local governments (Shoup, 1949:197–204; Ishi, 1992:21). Although the recommendations of the Shoup Mission received some serious thought in the form of legislation, the legislation was never implemented because of pressure from labour and business groups (Due, 1972:330). France adopted a consumption based VAT in 1954, when it provided for the taxation of each manufacturer on the basis of receipts from output, but with the privilege of deducting tax paid on goods purchased from other manufacturers (Due, 1966:123; Purohit, 1993:1). In 1968, the French Government merged this tax with the existing turnover taxes on services and a local tax on retail sales into a single comprehensive levy extending through to the retail stage. Denmark was the first European country to introduce a truly comprehensive VAT, in 1967 (Shoup, 1969a:236). The introduction of the VAT to developing countries began in the 1960s, initially in Brazil, Colombia, Uruguay and Argentina (Bird, 1970:114). Both in developed and developing countries, the tax has achieved considerable success in terms of coverage, revenues to the government and administrative simplicity (Tait, 1988:3; Bird, 1992:120; Burgess and Stern, 1993:812).

The biggest catalyst to the VAT movement, however, was provided by the European Common Market. In 1960, Article 99 of the European Economic

Community (EEC) Treaty advised member states to consider the "harmonisation" of turnover taxes in member states. The ABC Reports in 1963 (EEC Reports on Tax Harmonisation) and the report of the Fiscal and Financial Committee in 1963 (Neumark Report) recommended that the member states abolish the cascade–effect taxes and instead adopt a VAT (Bondonio, 1981:254; Cnossen, 1988:261; OECD, 1993a:55). The First European Community Council Directive (1967) clearly mentioned that "harmonisation" should result in member states abolishing cumulative multi–stage taxes and adopting a common system of VAT. According to the Council Directive, the VAT should cover all stages of production and distribution and the provision of services by 1 January 1970. However, it was observed in the Council Directive that the application of VAT to the retail level might, in some member states, meet with practical and political difficulties. Therefore, member states were permitted to apply the common system only up to wholesale trade stage. The common system of VAT, as set out in the Second European Community Council Directive (1967) specifically laid down the basis of the VAT in the EEC countries including a tax on all supplies of goods and services within the territory and the importation of goods. Member states were permitted to establish their own standard rate of tax. However, the application of zero rates was strictly restricted. It was emphasised in the Council Directive, that imported goods should be taxed at the same rate as that applied internally to the supply of goods. A taxable person was required to keep sufficiently detailed accounts and to issue invoices for goods and services supplied by his/her business.

The EEC Directives of shifting from the cascading type of indirect taxes to a VAT system did not pose serious difficulties for most EEC member countries. In

France, the existing system of "*taxe sur la valeur adjoutee*" was slightly modified to meet the EEC requirements. In 1967, Denmark also had VAT before the EEC Directive and therefore, adopted the VAT without much trouble. Belgium, Germany, Luxembourg, the Netherlands, Norway and Sweden adopted the VAT within the suggested time frame. However, Ireland, the United Kingdom, Italy, Spain, and Portugal took longer time to adopt the VAT because of political and administrative difficulties (Dorothy, 1975:4; Sandford, 1986b:247; Wallace, 1980:59-60; Wade, 1982:79; Puchala, 1984:134). The VAT base was nearly harmonised in 1977 with the promulgation and subsequent enactment of the European Community's Sixth VAT Directive (Price Waterhouse, 1986:1; Buckett, 1990:5). The VAT harmonisation was designed to ensure that no EU member country gains an unfair economic advantage through the manipulation of its tax system (Puchala, 1984:21; Buchan, 1990; Peters, 1991:20). To date the tax has been adopted by twenty–one of the 24 member countries of the Organisation for Economic Cooperation and Development (OECD). Though the tax has not so far been adopted by the United States and Australia, it has discussed widely (Chessell, 1993:4). In the United States, the VAT has been considered seriously on a number of occasions. Increasing pressure on government to reduce budget deficit and the Clinton administration's willingness to adopt a VAT to finance health care services are the most tangible evidence for its adoption in the United States (Ballard *et al.* 1987:445; McLure, 1993:346). Any country which joins EU as a full member is obliged to replace its existing sales tax with a VAT (Yeh, 1974:3). Outside the OECD, the VAT has been either adopted or is in the process of being introduced by approximately 59 countries in Africa, Asia, and Latin America (Appendix 4.1).

The VAT is a multi–stage, destination–based tax that includes all goods and services in its base (except those explicitly exempted). The tax is more comprehensive and versatile than a single–stage wholesale or retail sales tax, and is more product–neutral and factor–neutral than other forms of taxes on sales. It is collected in instalments on each increment in the value acquired by a product since the last taxable transaction, from the beginning of the production and distribution cycle to its culmination in the sale to the final consumer. Every taxable firm is required to charge tax on its sales, stating the exact amount on sales invoices. For any tax period, the net VAT liability is the difference between the total amount of VAT shown on all sales invoices, and the total amount of VAT shown on all purchase invoices (Cnossen, 1992:215). The tax permits registered firms a credit on tax paid earlier on inputs. The refund mechanism establishes a system of checks and balances. The credit claim on purchases can be checked simultaneously against the tax reported by the person selling to the business (Shoup, 1990:11). In its ideal form, the tax represents simply a proportionate levy on personal consumption. The tax provides an accurate and complete exemption of investment goods and exports (Cnossen and Shoup, 1987:72).

In the majority of countries, certain services, non–profit activities and small trade activities are exempted from the VAT, while imports are taxed in exactly the same manner as domestically produced commodities (Bakker and Chronican 1985:5, Scott and Davis, 1985:46; Tait, 1992:205), and exports are zero–rated in almost all the countries (Tait, 1988:3). Being neutral with respect to foreign trade, the VAT does not distort domestic production and distribution. Thus, under the VAT, it makes no difference how often a product is traded before it reaches the final consumer. Also, the VAT is neutral regarding the production techniques that a business adopts. It makes no difference for tax liability whether a product is manufactured with capital or labour–intensive technologies. Nevertheless, VAT's regressive effects on income distribution are admitted (Bird, 1987a:1151; Due, 1988:198), and have proven to be a significant barrier to its political acceptability (Tait, 1988:204; Ishi, 1992:25). In many countries the tax has created resentment and perpetuated the "politics of envy".

Pros and cons of the VAT

VAT's rapidly increasing popularity has instigated a lively debate between the proponents and the opponents of the tax. The proponents argue that the VAT is superior to income and narrow–based sales taxes in terms of efficiency and horizontal equity (Henderson, 1984:92; Peters, 1991:35; Freebairn, 1992:36), simplicity, and relative tax neutrality (Murphy, 1991:98). Under the tax, goods and services are subject to the same effective rate of taxation. The tax credit mechanism on intermediate goods improves the efficiency of the production sector (Stern, 1987:65). It has been suggested that it is fairer to tax people on what they take from society, rather than on what they contribute by working and investing (Teplitz and Brooks, 1986:50; Weidenbaum *et al.* 1989:1). It has also been argued that the VAT provides considerable economic and administrative advantages (Dalamagas, 1978:12–13; Harberger, 1990:317). It has been maintained that VAT improves the balance of payments and leads to improved international competitiveness through border–tax adjustments that are permitted under VAT. Border adjustment under the VAT ensures that international competition between producers of goods and services is on the basis of net–of–tax price (Sinn, 1992:4). There is the strong likelihood that increases in real after–tax rates of return received by savers will lead to increases in long–run capital accumulation (Henann, 1970:104; Cnossen, 1992:226; OECD, 1993a:43).

It has been argued that the large revenue potential of the tax can help governments reduce the amount of public debt and budgetary deficits without adversely influencing savings (Crum, 1983: 276; Ichioka, 1986:321). The tax helps to reduce the black economy by effectively taxing smuggled goods (United States Department of the Treasury, 1984:14; Tanzi, 1991:166). The simplicity of the tax provides administrative advantages over other taxes (Oh, Yeon–Cheon, 1982:187; Auerbach and Kotlikoff, 1987:6), which help to reduce tax avoidance and tax evasion (Head, 1985:123; Osborne, 1992:13).

The opponents of the VAT question whether such gains are of sufficient magnitude to outweigh the negative regressive effects of the tax (Weidenbaum *et al.* 1989:15; Brooks, 1993:42). If levied at a uniform rate, taxes on basic foods (bread, butter, sugar, milk) and other basic consumables (such as books, newspapers, children's clothes, electricity and gas, transport, medical services and so on) hurt poorer families more because they spend a larger proportion of their income on these goods and services than rich families (Tait, 1991:5; Quiggin, 1992:1; Harding, 1992:16). The basis of the VAT collection is based on invoices, dockets and book–keeping. In the absence of such documentation, it is difficult to realise VAT's perceived benefit. It has been argued that maintenance of sales and purchase accounts for the VAT is a real problem for many developing countries (Stout, 1969:9).

Opponents of the VAT also argue that the tax involves everyone in the production and distribution process and thus imposes substantial administrative and compliance costs on the tax collecting agency and taxpayers (Stadford, 1976:212; Ahmad and Stern, 1991:66). For example, in the case of Australia, the introduction of a VAT in place of wholesale taxes would mean a substantial increase in the number of registered taxpayers: from 75,000 active registered taxpayers to nearly 1.5 million taxpayers (McMullan, 1992:7) or more (Eichbaum, 1992:9). All taxpayers would be required to register with the tax office and undertake a heavy amount of extra accounting and paper–work activity. These extra requirements would mean substantial compliance costs for taxpayers. In developing countries, shortages of physical and human capital would impede the ability of tax administration to deal with the large number of taxpayers in a comprehensive manner (Ahmad and Stern, 1991:67). In a country like Pakistan with a large non-monetised sector and a large number of small traders, extension of VAT to the post-manufacturing/ import stage is likely to create substantial administrative problems. In several developing countries this limitation has been overcome by having a fairly high threshold limit. Small retailers were usually excluded from the tax. Small registered dealers were given an option to pay a small percentage of their turnover so that they need not cope with VAT accounting. It has been argued that in most developing countries the introduction of VAT is likely to increase the general price level (Lindholm, 1976:144; Garcia–Alba, 1982:216; Cnossen, 1992:224–225).

Over the past 20 years a number of studies have assessed various aspects of the VAT: its equity, efficiency and impact on international trade. A study undertaken to assess the VAT's incidence by substituting existing taxes for the VAT, has found that VAT has improved the allocation of resources (Bambang, 1989:164). In most simple theoretical models, the VAT has been found to be superior to the income tax

(Bradford, 1986:60; Auerbach and Kotlikoff, 1987:89; Aaron *et al.* 1988:7). However, in complex theoretical models, the relative merit of the two taxes has been less clear, and the comparison has become blurred (McLure and Zodrow, 1991:15). In other studies, the VAT was found to be inherently simpler and more efficient than income and turnover taxes (Yu Pyung, 1985:32; Yu, Shi–Kwon, 1990:132). It is obviously much easier to design a tax system which uses a flat–rate structure for many types of payments and receipts. A consumption tax that is built upon VAT meets this condition. A study by Yu, Shi–Kwon (1990:134) indicates that VAT, compared with other indirect taxes, is more efficient and has a more favourable impact on international trade. Nazier (1989:131) found that the tax, with a uniform tax rate structure, is slightly regressive with respect to household income and the distribution of welfare gains, but became less regressive after tax exemptions were adopted to protect low–income groups. Garcia–Alba (1982:222) found that substituting VAT for other cascading types of taxes improves income distribution. The improvement, however, is very small.

Theoretical framework

The nature and forms of the VAT

A VAT, as its name implies, is imposed on the value–added at each stage of production and distribution. A VAT on incremental value–added allows a deduction or refund of tax paid on inputs at each stage until it reaches the final consumer who bears the ultimate burden, at least in theory. As such, VAT differs from cascading–effect taxes (Burgess and Stern, 1993: 777–778; McLure, 1993:348). The VAT is neutral between less efficient and more efficient producer (Smith, 1964:33). The simplest form of VAT is one that has a relatively high turnover figure for small producers and traders; that limits zero–rating; that keeps the number of exempt goods to a minimum; and that has only one rate. The varieties of the VAT adopted in various countries differ considerably with respect to administrative convenience. In implementing the VAT, the major policy question is: whether the VAT be applied to a comprehensive income base or to a comprehensive consumption base (Freebairn, 1992:40). In either case, there is a second question: should the tax be imposed as a single–stage tax or as an incremental, multiple–stage tax? The choice of consumption base is between a retail–sales tax (RST) and a VAT, which is consumption–based. These issues are briefly discussed in the following paragraphs.

Consumption versus income base

The choice of a base upon which the VAT is introduced, determines the distribution of VATs burden and its economic effects. There are two types of VAT which differ only on the basis of treatment of capital goods: consumption–based VAT and income–based VAT (Pechman, 1987:205). Under the consumption–based VAT, each firm is allowed immediate credit for all taxes paid on capital goods as well as for those paid on intermediate inputs, after which only sales to final consumers are taxed (Due, 1988:126). If there are no exemptions, the total tax base equals total personal consumption. Under the income–based VAT, deductions of input costs of capital goods are not permitted in the period of purchase. Firms are allowed credit for taxes on capital goods on the basis of the life of assets as those assets depreciate (Sullivan, 1965:38; Shoup, 1969b:32). The term income–base is used because the total base of this tax is equal to total personal income (Ishi, 1992:24). The tax base can be computed by adding the factor rewards accruing to labour and capital. In this method, depreciation not the total amount spent on purchasing investment goods in the tax period is subtracted.

Methods of VAT calculation

A tax on the value–added can be calculated by various methods, including subtraction method, the addition method or the credit method (Table 4.1). Under these three methods, a uniform VAT rate, if applied to the same base of goods and services, would generate the same amount of tax revenue. However, confining the VAT to a uniform rate seems improbable for socio–political reasons. On equity grounds, policy makers prefer to tax goods which form an important part of the low income households' consumption, either at zero–rate or at lower rates. In this situation, the invoice or credit method, has been accepted as more efficient than other methods in many countries. Under the invoice or credit method, the tax liability can be calculated at the convenience of the taxpayers: monthly, quarterly or annually. This method facilitates the application of rate differentiation and exemptions (Due, 1988:126; Tait, 1988:4). The credit method allows registered suppliers to systematically claim refunds for taxes they have paid on goods and services. In this process, although the tax is applied at every level of production and distribution, the tax burden falls on the final consumer. Table 4.1 illustrates the mechanism under the three different methods.

Table 4.1 **Calculation of value–added tax under various methods**

	Stage of production			
	Firm A manufacturers	Firm B wholesaler	Firm C retailer	Total economy
A. Subtraction method				
Sales	350	850	1100	2300
Purchases	100	350	850	1300
Value–added (sales – purchases)	250	500	250	1000
Value–added tax[1]	25	50	25	100
B. Addition method				
Factor payments[2]				
Wages	150	300	200	650
Rent	50	100	20	170
Interest	25	75	20	120
Profit	25	25	10	60
Total	250	500	250	1000
Value–added tax	25	50	25	100
C. Credit method				
Sales	350	850	1100	2300
Tax on sales	35	85	110	230
Purchases	100	350	850	1300
Tax on purchases	10	35	85	130
Value–addedtax(tax on sales tax on purchases)	25	50	25	100

Notes: [1]Tax liability is calculated at the rate of 10 per cent. [2]Including net profit.
Source: United States Department of Treasury, 1984. *Tax Reform for Fairness, Simplicity, and Economic Growth*, Volume 3, Washington, DC: Office of the Secretary, Department of the Treasury:Table 2–1:9.

Tax rate and exemptions

The academic literature and VAT implementation experience suggest that the base for the VAT should be as comprehensive as possible and that preferably, a uniform tax rate be used. The level of exemptions should be kept to a minimum so as to reduce distortions and opportunities for tax avoidance (Dalamagas, 1978:14; Peat Marwick, 1988:iv; Tait, 1988:50). In its ideal form, the VAT requires that all business activities up to the retail level be taxed. However, implementation experience of the tax, both in developed and developing countries, suggests that this condition is hard to achieve and certain exemptions have to be given on grounds of equity and administrative expediency. In many countries, certain items of expenditure that figure prominently in the budget of low–income families, such as food for home consumption, household utilities, medical expenses and housing, have been either zero–rated and exempted (Appendix 4.2) or taxed at a much lower rate to reduce the regressive impact of the tax (Harding, 1992:22).

Under the VAT, commodities, transactions or firms can receive preferential treatment in two different ways: either by zero–rating or by exemptions. Under zero–rating, there is no tax on zero–rated goods. In practice, because of its administrative complexity, it is confined to exports, and a few sensitive goods and services (Mackenzie, 1992:259). With zero rating under VAT, it is necessary that the system of refunds on transactions meant for zero rated goods and services should be in place and enforced properly so that registered dealers can claim the tax refund immediately. The nature of exemptions in the VAT system is different. Goods and services are not completely free of tax. The VAT system, however, does provide relief to an exempt trader, but all inputs are taxed (Tait, 1988:50). The exemptions under the VAT system create many problems and influence the neutrality of the tax. For example, a firm selling exempted goods to the final consumer is at a clear advantage because of the reduced tax burden. But if the exempted firm is selling goods to other firms, it may increase the tax burden on the goods, because the tax credit sequence has been broken. The second inherent problem with exemptions is that it is difficult to distinguish between taxable and tax–free purchases. For example, if food is treated as a tax free good, should ice cream, candy, and soda be considered food? Administrative decisions must be made in these and many other areas to identify taxable and tax–free purchases. Compliance is less reliable when firms which sell both taxable and non–taxable commodities must allocate these sales to the appropriate categories.

Comparison with other forms of sales taxes

VAT versus turnover tax

Compared with turnover taxes, the VAT avoids several deficiencies in production and consumption. A turnover tax is likely to result in widespread double taxation and pyramiding. Under a turnover tax, the entire tax must be paid at a relatively early point in the process of production. In this process, capital funds are tied up for prolonged periods between the tax payment and the final sales for consumption. Thus, the final cost to the consumer is not only the accumulated burden of sales tax, but also an accumulation of interest over the interval in which capital funds have been frozen. Another drawback of the turnover tax is that tax pyramiding provides an unfair advantage for big firms that wish to integrate. Their collusion or cartelisation provides them with an opportunity to evade taxes. A VAT, on the other hand, is independent of vertical integration within an industry. Each firm is taxed only on that portion of its final product which is over and above what it has purchased from other VAT paying units.

VAT versus expenditure tax

Fisher and Fisher (1942) and Kaldor (1955), strong advocates of an expenditure tax, argue that a tax on spending is a better measure of the ability of a person to pay than is income tax (Fisher, 1942:61; Kaldor, 1955:11–16). A tax based on an individual's consumption was seen as the most appropriate form of taxation from the point of view of fairness. The expenditure tax closely resembles the income tax except that the tax base is spending. It is levied directly on the taxpayers and involves taxpayers filing annual returns with exemptions and deductions. In its simplest form, an expenditure tax requires no special tax on capital gains or imputed rent (Andrens, 1974:1135). The tax has never been used in any industrial country (Advisory Commission on Intergovernmental Relations, 1974:7). The United States Treasury proposed a "spending tax" in 1942, as a temporary measure to control inflation during the Second World War (Graetz, 1980:161). The proposal, however, was rejected by the United States Senate Finance Committee (Advisory Commission on Intergovernmental Relations, 1974:12). The tax was also recommended by a minority of the British Royal Commission on the Taxation of Profits and Income in 1955, by the Meade Committee in 1978 and a Swedish legislative committee, but their recommendations were not adopted (Pechman, 1986:299). India and Sri Lanka applied this form of tax for a few years but abolished it on the grounds of administrative and compliance inconvenience (Kelley, 1970:249).

It has been argued that while the tax is theoretically sound it was practically impossible to implement efficiently (Keynes in Moggride, 1978:206–207; Goode, 1980:72). An expenditure tax with exemptions for the lower–income groups which vary the tax with the size of the family and some deductions, such as medical and education expenses could be made progressive, whereas VAT because of its proportional nature lacks progressivity (Due, 1988:21). However, the administration of an expenditure tax has always been considered a formidable task (Advisory Commission on Intergovernmental Relations, 1974:5). The administration and compliance under the expenditure tax is difficult and complex. Under the expenditure tax the taxpayers are required to calculate taxable expenditure. The enforcement of a personal expenditure tax requires that all cash inflows must be recorded and from this the actual permissible expenditure incurred in earning income is to be deducted. This involves substantial amount of record keeping. Since it is difficult for each taxpayer to keep adequate expenditure record, the compliance under the expenditure tax become difficult (Pechman, 1986:107). The main advantage of VAT over the expenditure tax is the convenience of the VAT administration. The VAT is a comparatively simple tax in its administration and enforcement, and convenient to both taxpayers and the tax collectors (Cnossen, 1987: 573; Zodrow and McLure, 1990:227).

VAT versus retail sales tax

The VAT and the RST are two different ways of taxing an identical tax base: private domestic consumption expenditure (Aaron and Galper, 1985:109). The general economic effects of the two taxes are the same, and the same people ultimately bear the burden of both types of taxes (Shoup, 1968:153; Due, 1988:117). Cnossen (1989:326) has noted that the VAT is a more robust form of sales tax than the RST, while Musgrave (1987:259) argues that in developing countries the RST is not an achievable tax because sales cannot be determined easily and enforcement of the tax is difficult. The EU, while considering various forms of sales taxation to achieve uniformity in border tax adjustments, has rejected a retail sales tax (Neumark Committee, 1963:47, 49).

The RST has the advantage in that it is only implemented on final sales, and relieves firms of the burden of tax liability at each stage of production and distribution, as required by the VAT (Ahmad and Stern, 1991:66). The RST is therefore regarded as more efficient because only the final–stage sale is included in the tax administration network. However, it is difficult and costly to identify the final stage. Under the RST, it is practically impossible, for administrative reasons, to eliminate all retail sales tax on business inputs. This implies that the destination principle can only be approximated under the RST. Imported consumer goods bear less of a tax burden than domestically produced goods because they are not impeded by cascading taxes on producer inputs. Also, the RST fails to eliminate the cascading effect on exports. Under VAT, imported goods are taxed the same amount as domestic goods, and exports are zero–rated. The VAT allows an added degree of freedom in the design of tax policy (McLure, 1993:350). Even with exemptions of retail sales from the VAT, it is still possible to collect tax on pre–retail value added (Cnossen, 1987a:569–570). This is important in the context of developing countries where it is always difficult to register small traders and retailers for tax purposes. Under RST, no mechanism is available to capture its base fully, and this leads to massive tax evasion (Ahmad and Stern, 1991:66; Cnossen, 1992:219–220). The advantage of VAT is that it taxes goods or services at the same rate, irrespective of the number of times they are sold or resold between the point of manufacture and the final sale to the consumer. At all stages, the product is taxed only on the increment in its value (Scott and Davis, 1985:17). This suggests that the VAT is a preferred option over the RST (McLure, 1993:352).

Revenue potential of the VAT

The biggest advantage of the VAT is that it is a buoyant source of government revenue (Cnossen, 1983b:327). Experience suggests that in the majority of countries where it is used, the VAT has raised substantial revenues. In OECD countries, the VAT (on average) raised approximately 15 per cent of the total tax revenue in 1975; by 1990 the share had increased to nearly 20 per cent (Table 4.2). The shift in New Zealand has been even more pronounced. In 1975, 9.8 per cent of total tax revenues was raised from consumption taxes; by 1990 this share increased to 21.6 per cent (Table 4.2). In EU countries, the VAT (on average) contributed to 20 per cent of total tax revenues; increasing from 16 per cent of total tax revenues in the late 1960s and early 1970s (Cnossen, 1983a:151). In developing countries, the ratio of VAT collection to total tax revenue ranges from 7 per cent to 35 per cent (Casanegra, 1990:171). In the majority of countries using VAT, the tax contributes around 15 to 20 per cent of total tax revenue. Expressed as a percentage of GDP, in the majority of countries, the VAT contributed between one and ten per cent of gross domestic product (GDP). Table 4.2 shows VAT revenue collection in selected countries in terms of total tax revenue and as a proportion of GDP.

Table 4.2 **Revenue from value–added tax – selected countries**[1]

	As % of total tax revenue[2]			As % of GDP[2]		
	1975	1985	1990	1975	1985	1990
OECD countries						
Denmark	23.1	28.3	27.1	6.8	9.8	9.6
France	26.1	23.0	21.7	8.6	8.8	8.2
Italy	15.2	15.3	15.9[3]	3.7	5.4	5.9[3]
United Kingdom	10.1	17.9	19.3[3]	3.1	5.9	6.1[3]
New Zealand	9.8	10.8	21.6[3]	2.7	3.4	7.7[3]
Canada	11.4	11.8	14.8[3]	2.0	2.0	2.6[3]
Netherlands	14.3	16.6	17.1	6.3	7.2	7.3
Turkey	31.3	21.9	27.2[4]	1.1	3.2	4.4[4]
Spain	7.0	8.4	16.7[4]	1.3	2.1	3.8[4]
Other countries						
Israel	15.3	31.2	34.9	6.0	8.7	11.7
Korea Republic of	14.1	24.0	24.6[3]	1.9	3.6	3.3[3]
Colombia	15.4	23.4	24.0[3]	1.7	2.5	2.8[3]
Indonesia	9.3	13.1	21.9[3]	1.5	2.4	3.5[3]
Philippine	11.8	8.6	10.5	1.5	0.9	1.5
Thailand	22.9	20.5	22.5	2.6	2.9	4.1
Mexico	19.2	19.1	22.3	2.2	2.9	2.9
Brazil	4.5	3.7	7.1[3]	..	0.5	1.0[3]
Uruguay	23.8	28.9	23.6	4.2	6.3	5.9

Notes: ..Information not available.
[1]Where revenues are shown before VAT introduction they represent general sales tax collections.
[2]Consolidated Central Government.
[3]Information based on 1989 data.
[4]Information based on 1988 data.

Sources: IMF, 1991. *Government Finance Statistics Yearbook 1991*, Washington, DC: International Monetary Fund.
IMF, 1993b. *International Financial Statistics Yearbook 1993*, Washington, DC: International Monetary Fund.
Tait, A. A., 1988. *Value–Added Tax: International Practice and Problems*, Washington, DC: International Monetary Fund:Table 1.4: 26–27; Table 1.5:28–29.

Distributional effects of VAT

An important aspect of any tax reform is its impact on various income groups (Burgess and Stern, 1993:787). Empirical evidence suggests that among various taxes, the impact of the VAT on different income groups is more open (Stern, 1990:103; Chisholm *et al.* 1990:150; Harding, 1992:16). Applied at a uniform rate on all goods and services and at every stage of distribution, the VAT is seen by many as a regressive tax (Brashares *et al.* 1988:155; McLure, 1990:32; Harberger, 1990:318; Bird, 1992:58; Quiggin, 1992:1). The Philippine experience suggests that the VAT is slightly more progressive than the taxes it replaced. In Pakistan the coverage of sales tax on domestic production and imports is limited because the tax base is riddled with large numbers of exemptions and concessions. The impact of a comprehensive VAT substituting for a sales tax is therefore likely to be regressive. In the majority of countries, measures have been taken to reduce the regressivity of the tax, by adopting multiple tax rates with low rates on necessities and higher rates on luxuries. Also, exemptions and zero–rates have been used to make the VAT less regressive by exempting essential items such as food and medicine. The regressivity of the tax has also been reduced by imposing selective excise taxes on non–essential and luxury commodities at substantially higher rates in addition to the VAT rate (Teplitz and Brooks, 1986:52; Musgrave, 1987:260).

Economic effects of VAT

This section examines some of the economic effects of the VAT, such as its neutrality, and its effects on savings, investment, economic growth, the general price level, and international trade.

Neutrality

Neutrality is one of the chief advantages of the VAT. A consumption–type VAT is free from the cascading effects of taxing inputs to domestic manufacturing (Ahmad and Stern, 1991:44). In essence, the tax paid on business purchases is credited against the tax on sales, and purchases such as raw materials, intermediate goods and capital equipment. Ideally, the tax should be applied, at equal rates to all goods and services. Thus, it would not distort consumer decisions on how to spend their incomes or the way goods and services are produced (Dresch *et al.* 1977:4). The tax credit mechanism applying to all capital goods does not influence producer choice with respect to production techniques (labour–intensive versus capital–intensive methods). Also, the tax does not distort the choice of whether to consume now or later because it applies at equal rates to present and future consumption (Aaron, 1982:17). However, experience suggests that the tax is not likely to be levied in its pure form: some exemptions are likely to be enacted as a matter of equity and administrative convenience. In practice, therefore, the VAT is likely to be substantially less neutral than in theory. Nevertheless, it is reasonable to consider the VAT a basically neutral tax.

Savings, investment and economic growth

One point usually made about a consumption–type VAT is its favourable impact on savings, investment, and economic growth (Shoup, 1969a:252). This is in contrast to personal income taxes which tax income, whether saved or consumed (Sullivan, 1965:27; Scott and Davis, 1985:24). It has been demonstrated that adoption of a VAT has a positive effect on capital formation (Oakland, 1967:280; Yeh, 1974:v; Auerbach and Kotlikoff, 1983:460). It has also been shown that the substitution of a

VAT for an income tax system raises the capital–labour ratio as long as the savings rate on wage income is less than the savings rate on income from capital. This implies that given a constant rate of growth of the labour force, a change in the tax structure will change the time rate of change of the capital stock. Yeh's (1974) analysis indicated that the adoption of a VAT improves capital formation which, in turn, has a positive impact on economic growth. However, a cross–country analysis of 20 OECD countries showed that savings rates are no higher in countries that rely more heavily on VAT for revenue purposes (Militzer and Ontscherenki, 1990:35). Moreover, the assumption that lower taxes on incomes encourage people to work harder and save more has not been substantiated by the experience of many countries using the VAT. There is no guarantee that a shift from an income tax to a consumption tax will increase the level of investment. People may invest their savings in luxury goods (Clark, 1991:13). Theoretically, there is a presumption that the income tax falls on present saving and consumption, while the consumption tax falls only on present consumption. The replacement of the income tax by the consumption tax could therefore induce higher saving. Under VAT the tax on capital goods gets a set-off. The same volume of monetary saving will buy more real investment.

Inflationary potential

A key question in the debate about the VAT is its effect on the price level. In appraising the effects of the VAT on prices, it is necessary to distinguish between imposing the VAT as a new source of revenue, or introducing the VAT as a substitute for existing direct and indirect taxes. If the VAT replaces some of the existing taxes with an equal revenue yield, there will be relative changes in prices, but theoretically there will be no overall price increase (Tait, 1992:203). However, if the structure of the VAT effectively increases the tax burden, or if the VAT is introduced as a net addition to the fiscal system, an increase in the prices of affected goods and services can be expected (Stout, 1963:330). This causal relationship between the tax and the seller's price of a commodity is based on the assumption that costs are increased by the amount of the tax, and that the profitability of the firm is maintained only if the quantity sold is not decreased by the price increase (Lindholm, 1976:144). An International Monetary Fund (IMF) survey on the impact of the introduction of the VAT in 35 countries, found that in 29 cases (83 per cent), the introduction of the VAT did not alter the rate of price change (Tait, 1991:8). In the remaining six countries, the introduction of the VAT, associated in each case with an expansionary wage and credit policy, contributed to an increase in prices. In three out of the six countries, the introduction of the VAT was not revenue–neutral, but rather was associated with an increase in the overall tax burden (Murphy, 1992:3; Chessell, 1993:12). It has been argued, however, that even if the VAT generates a net increase in revenue, a tax increase, other things being equal, should be deflationary rather than inflationary (Sinclair, 1983:382). In other words, it is not the VAT itself that is inflationary, but other policies that make it so.

Because many factors affect prices, it is difficult to isolate changes in price levels associated with the introduction of VAT. The simplest, and perhaps most accurate, assumption is that with the implementation of a VAT, prices would experience a one–off rise. For example, if business shifts full tax liability forward to the consumer, a 10 per cent VAT would increase prices by 10 per cent.

International economic effects

Amongst the most publicised features of the VAT is the border–tax adjustment allowed on international trade. In the Value–added tax system, exports leave completely free of tax or zero–rated, thereby allowing domestically produced goods to compete effectively on the world market (Cohen, 1971:399; Tait, 1992:205). Under the VAT, purchases for consumption are subject to the same tax, whether produced domestically or imported. In this process, exports are not taxed by the country of origin, but by the country of destination. The result of such a change in tax policy will be that lower export prices, and a tax on imports, are likely to increase exports and reduce imports, and will therefore have a positive impact on the balance of trade position of a country. However, trade transactions are not solely dependent on the matrix of customs duties. There are many other factors which influence a country's trade balance. For example, under a flexible exchange rate regime, trade benefits from VAT are only achievable if the domestic price level remains unchanged, or, is increased by less than the full amount of the VAT. Under these conditions, the price of a country's exports would decline relative to those of domestically consumed goods. In this case, there would be a tendency for the country's trade balance to improve. However, achievement of these circumstances is most improbable (Cnossen, 1992:226; Tait, 1992:205). In the short–term, a country may benefit from these arrangements, but in the long–term it is difficult to maintain this parity. Trade implications of a VAT are, therefore, controversial.

Administrative feasibility

The success of any tax depends largely on its efficient administration. An ideal tax, from the standpoint of administrative efficiency and successful enforcement, is one in which taxpayers are easily identified as a body and the structure is simple. The tax should not impose unnecessary inconvenience on the taxpayer. The administration of the tax should involve small costs and these costs should be stable over time, and should be equitable in enforcement. A taxation system cannot be regarded as fair if the intention of the law is not fully carried out in practice. It is necessary, therefore, that the tax laws be enforced in such a manner that loopholes are closed and avenues of avoidance and evasion are minimised (Due, 1954:118). The experience of countries within and outside the EU suggests that the VAT is not a simple tax to administer (Dorothy, 1975:122). The administrative capacity of the tax authority to collect and process the information efficiently is an important constraint to the majority of countries adopting the VAT (Newbery, 1987a:200). Before recommending adoption of a VAT, careful analysis is needed of the existing administrative machinery and the resources available to the tax authority, such as the quality of staff and level of computer support.

Implementation framework

The first step toward successful implementation of the VAT lies in the political acceptance of the new tax. Political support and authority to enforce the tax appear most important in the case of the VAT, without which no progress can be made in administering the tax (Bird, 1970:99). In many cases a policy favouring the VAT has led to public resentment and caused considerable damage to the popularity of the political party which favoured its introduction. In a majority of the countries, a policy decision to introduce the VAT has taken a considerably long time. For example, in Japan, the Shoup Mission recommended a VAT as early as 1949, but a decision on the implementation of the tax was not taken until 1991. Prior to implementation, a number of policy issues should be resolved, including: structural issues (production/distribution stage to which VAT is to be applied, exemptions to be provided, treatment of small businesses, capital goods, services and so on); and consequential policy issues (registration provisions and period, mandatory and voluntary registration options, processing of returns, and so on). The next step in the implementation of the tax is an assessment of the time needed to implement the tax satisfactorily. This depends on various factors so there is no consensus on the time schedule. Based on experience, 18 to 24 months are generally needed from the date on which the decision to introduce the VAT is taken and to its implementation (United States Department of Treasury, 1984:124; Holland, 1991a:23; Ahmad and Stern, 1991:219). Also important, is the choice of department that will administer the VAT. As part of the implementation schedule, it is also essential that work on the computerisation of the VAT system be started as early as possible.

Administration of the VAT

In terms of its coverage and compliance, the VAT has few features in common with other forms of sales taxes (Harberger, 1990:317; Casanegra and Silvani, 1991:30). It requires new legislation, new procedures, newly trained staff, and a new approach to concepts of compliance, audit and computerisation (Newbery, 1987a:203; Ahmad and Stern, 1991:219; Burgess and Stern, 1993:798). The experience of countries using the VAT indicates that in many respects the operations of the tax system can be relatively standard across countries. This section discusses some of the basic administrative issues for successful introduction of the VAT, such as taxpayers' identification and registration, record keeping, filing of returns, tax collection procedures, and tax enforcement.

Taxpayers identification and registration

A destination–based VAT has to deal with entire business entities, such as manufacturers, importers and exporters, wholesalers and retailers and various services whose sales of taxable goods and services exceed the minimum taxable limit. All those who sell goods or provide services above a minimum threshold level will be required to register their business with the VAT authority (Bascand, 1989:389). It is important that all liable taxpayers be identified well before the VAT commencement date, and a master list of possible taxpayers be prepared. All taxpayers on the list should be sent a letter enclosing a VAT registration application form and a registration guide. Taxable persons should be encouraged to register early and a cut–off date for the registration should be set.

In many countries, small retailers and traders and small farmers are exempted from the registration of VAT on the argument of higher administrative and compliance costs (Godwin, 1976: 48; Sandford *et al.* 1981:22). These businesses are exempted through various methods, by far the most popular of which is setting an annual turnover limit below which the business would be exempt from registration (Appendix 4.3). An exempt business would, however, still be required to pay VAT on its purchases, but would not be charged VAT on its output, nor be required to issue tax invoices. It is necessary, therefore, that VAT legislation clearly define those who are exempted from the VAT. In the process, however, there will be certain persons who are not taxable, but would like to be registered so that they can claim a deduction for input tax and then issue tax invoices to other registered persons, or export their goods which are zero–rated. These persons should be encouraged to register voluntarily.

Each taxable person should be treated as a legal entity and he/she should be required to register only once. For administrative convenience, it is necessary that the country in which the VAT is introduced be divided into various regions, each of which is provided with a Regional Office which is equipped with a computer facility for VAT registration, assessment and tax collection work. A computer controlled regional National Tax Number (NTN) should be assigned to each business in the regional office jurisdiction. Each business NTN should show a specific area code, a business code and a personal identity number. A control mechanism at the central location (Head Office) should be developed to ensure that the regional offices report all details, such as taxable persons in the region, and tax collected (Tait, 1988: 334–35; Casanegra and Silvani, 1991:37). The master file of each tax payer should be kept on the computer system, preferably in the Head Office, and lists kept at each collection office. This will facilitate control, coordination and collection of the VAT.

Registration campaign

It is essential that taxpayers and the general public recognise and accept the VAT with no or minimum resistance. Publicity through notices, booklets, radio and television and newspaper advertisements is necessary to educate people on all aspects of the VAT (Casanegra and Silvani, 1991:30). A trader education program on the VAT would create an atmosphere of understanding, and would ensure that all taxable persons know about the registration procedure, application forms and other related procedures. Consultation with the business community would help the tax administration to understand the business community's point of view.

Record keeping

All persons supplying taxable goods and services under the VAT system should keep adequate business records showing details of their purchases and sales of taxable supplies and the VAT charged thereon. A legally prescribed tax invoice should be issued in serially numbered order for all taxable supplies showing the amount of VAT charged. The advantage of invoicing is that it becomes the crucial documentary evidence and provides a good audit trail (Tait, 1991:4).

The accounting requirements of the VAT have been criticised on the grounds that they are not suitable for developing countries because of these countries low levels of literacy and because of the burden of compliance costs associated with the record–keeping requirements. This criticism has been overcome in many countries by designing simple accounting requirements. Taxpayers liable for VAT, but with a small turn–over, are required to maintain simplified accounts, such as a separate VAT Account Book to record periodically the amounts of VAT paid on inputs or charged on outputs and VAT paid to the government.

Filing of returns, tax period and payment

An essential part of the VAT operation is the furnishing of tax returns. Each taxpayer is required to submit a monthly, bi–monthly, quarterly or annual return to the tax department. In the majority of countries monthly or quarterly returns have proved most convenient both to the tax administration and taxpayers (Appendix 4.3). However, for reasons of simplicity and convenience, the tax returns should not contain any data other than that needed by the tax department. No supporting material or documents need to be attached to the returns. These should be retained by the taxpayer for inspection by a VAT auditor.

Collection procedures

Collection – imported goods

Keeping administrative convenience in mind, VAT on imported goods may be collected by the Customs Department at the time of lodging the customs entry. All registered persons who import goods for their businesses should be required to indicate their National Tax Number (NTN) on their customs entries for subsequent selective checking against the value of inputs shown in their accounts.

Collection – domestic supplies

Each VAT regional office should have tax collection machinery. Use of computers at the regional office should be made a precondition of VAT administration. This would help to provide details on the receipt of the return and the tax deposited with it. A system of some percentage of tax rebate for prompt payment should be introduced. Similarly, in the case of non–payment, or underpayment of the tax, a notice should be issued imposing a penalty immediately. The legislation should clearly specify the acceptance of the tax without a fine no later than the due date of the return.

Enforcement

It is necessary that from the date of introduction of VAT, a high compliance rate be achieved. This can be achieved only by giving immediate reminders and taking appropriate enforcement action for each defaulter. Failure to make a return by the due date should result in the application of a fixed penalty for each month the payment is outstanding (Meyer and Due, 1988:15). Where, after due reminder and warning, the registered person continues to default, action should be taken to impose an appropriate penalty. However, the person should be given the right to appeal. The experience of most countries suggests that lack of enforcement creates serious problems in the implementation of the tax (Purohit, 1993:24).

Processing procedures – tax verification and audit

Early attention has to be given to the verification of returns. The experience of various countries suggests that in the initial stage, this basic requirement has been neglected on the mistaken assumption that revenue receipts from the tax are satisfactory and, therefore, the tax implementation system is working efficiently. This approach is misguided. Overtime it may result in some irreparable damage to the VAT administration, because taxpayers will soon assess the effectiveness of administrative controls and take advantage of any perceived weaknesses. This suggests that an effective audit activity is central to the operation of the VAT system. The purpose of an audit should be to verify that the taxpayer selected for audit has paid the correct amount of VAT. It is important to note that this type of audit cannot be conducted from the desk. It is a field activity conducted on the taxpayer's premises. Also, it should not be a full investigation, but should be a targeted check aimed at a specific issue for a specific period. This implies, for example, a full check of input credits claimed for a given period.

For effective control it is also necessary for returns received to be verified on a random sample basis: for example, five or ten per cent of the total returns. However, it may be appropriate that the same cases do not get selected for detailed scrutiny in consecutive years: at least an interval of two to three years for large taxpayers, and smaller taxpayers may be audited once every seven to eight years, so as to avoid harassment of taxpayers. Also, to avoid corruption, detailed scrutiny of the cases should not be dealt with by individual officers: rather the cases should be assigned to a panel of experienced officers consisting of a qualified auditor and legal adviser. Similarly, the accounts and invoices should also be checked through selective visits to assess the reliability of registered persons. Middle and senior management should accompany officials on selected visits to the major taxpayers. In all cases, reports of these visits should be closely monitored to ensure that the results achieved are satisfactory.

Organisational structure

In many countries a whole new infrastructure has been created to administer the VAT: central and regional offices have been established; staff trained in all aspects of the VAT system; and the tax system fully computerised. The following paragraphs discuss the staffing and training requirements for successful VAT operation.

Institutional set–up

One of the most important decisions that has to be made before introducing a broad–based consumption tax (VAT) is the selection of the department to administer the tax. In making this decision, policy–makers generally have three options: to attach VAT collection to the income tax department; to the Customs and Excise department; or to create a new department (Holland, 1991b:49). In the United Kingdom, the Netherlands and Denmark, VAT is administered by the department of Customs and

Excise, and Consumer Taxes. In Belgium and Italy a separate body has been created. In Spain the tax is administered by the *Ministerio de Economia of Hacienda.* In many countries a separate body has been established to exclusively administer the tax.

Staffing, recruitment and training

The number of staff required to administer the VAT depends on a number of factors. The most significant factor is the number of VAT payers. The ratio of staff to taxpayers ranges quite widely from 1 to 123 taxpayers in Belgium to 1 to 726 in Italy (Table 5.1). Countries with high ratios of taxpayers to staff, such as Italy, tend to have significant tax evasion problems. On average, the ratio is approximately one to 200. For successful implementation, it is important that reliable and experienced staff be selected to administer the new tax. The overall administration may be entrusted to a chief executive, and his/her appointment should be given priority. He/she should be responsible for assessing the staffing requirements for the new tax and recruitment procedures. Similarly, at regional offices, regional chiefs in their respective regions should assess their staffing needs in consultation with the chief executive of the VAT department. Adequate and appropriate training, which is essential for all staff engaged in VAT work, needs to be a priority (Goode, 1981:256; Casanegra, 1990:175). Experience shows that this can best be done by selecting able and experienced personnel with relevant training and experience as instructors and consultants (Goode, 1990:481). Assistance from foreign experienced trainers in VAT will be beneficial to a well–designed training program. The training program should be arranged in modules, each dealing with separate VAT subjects. The overall training objective should be to ensure that each staff member has both the skill and knowledge needed to perform his/her function.

Conclusions

Over the last 30 years the VAT has gained substantial popularity because of its effectiveness. The tax offers the greatest scope for revenue generation. The tax is levied on the incremental value added in the production of consumer goods, including the retail stage. Since the sum of all value added throughout the production and distribution cycle equals the monetary value of the final product, economically the VAT is equivalent to a tax imposed on consumer prices: that is, a general sales tax levied up to the retail level. Among the various forms of broad–based consumption taxes, familiarity favours the retail sales tax, but economic neutrality is against it. Certain administrative features and the economic benefits favour a VAT. A VAT can be imposed on different tax bases, and tax liability can be calculated in various ways. However, the tax credit method has been used in the majority of countries. Under the VAT system, net liability for tax is determined by permitting each firm credit for intermediate and capital goods on the basis of invoices issued by the suppliers of inputs. The economic effects of the VAT, such as improvement in the rates of saving, investment, and international trade balances are controversial. Countries have had mixed experiences on these issues. The tax has been criticised on the basis of its regressive effects and this factor has proved to be a significant barrier to its political acceptance. Empirically, it has been observed that with a well–designed compensation mechanism, either through a lower tax rate on items that are mainly used by the low income groups, or through some other mechanism of transfer, the vulnerable groups in society can be protected from the tax's regressive effects.

The experience of countries with the VAT suggests that administration of VAT is not simple. In its implementation, definition problems continuously arise. Its complexity requires that matters relating to administration should be addressed cautiously. This includes: designing a system for administration; developing complete staffing and equipment needs; developing a practical public relations program; and adhering to a realistic time–table. The staff associated with administering the tax also need be appropriately rewarded through pay and service conditions. Training both for tax officials and taxpayers on all aspects of the VAT is essential. Comprehensive tax publicity through mass media and other forms of publicity, not only reduce public concern over the tax, but provide a more congenial environment for tax education of the benefits to both the tax assessor and the tax assessed.

5

Value-Added Tax: An International Perspective

This chapter is divided into three parts. Part I discusses the administrative and organisational structure of the VAT. Part II reviews its revenue aspects, including the administrative and compliance costs. Part III discusses the economic effects of the VAT.

The precise form of VAT varies significantly among countries. In some countries, the VAT has been applied on selected commodities, in others it has been imposed at all levels of production and distribution (Shalizi and Squire, 1990:156). In most OECD countries, VAT has been introduced up to the retail level, with few exemptions, whereas in most countries of Asia, Africa and Latin America, VAT coverage has been confined to the manufacturing or wholesale sectors, with many exemptions. In these latter countries, it has been administratively complex to tax hundreds of thousands of retail firms with a weak administrative infrastructure. In all countries, except Brazil, the collection and control of VAT has been the responsibility of the national administration (Poddar 1990:104; Longo 1990:122; Commission of the European Communities, 1992:1). In Brazil, VAT at the federal level is a selective tax with limited coverage of selected manufactured goods, whereas at the state level, the VAT covers most of the production and distribution transactions, including the retail sector sales (Purohit 1993:59). In most countries surveyed, exports are zero-rated, and a VAT rate equal to that on domestic goods and services is charged on imports. This chapter assesses VAT's impact in 23 selected countries including 12 OECD countries, five Asian countries, and six African and Latin American countries. Supporting references have also been used to cover the experiences of other countries. Among the countries analysed, the majority opted for a consumption-based, credit-type VAT. Only a small number of countries – Argentina, Peru, Morocco and Turkey – opted for an income-based VAT.

Administrative and organisational structure of the VAT

The effectiveness of VAT administration is greatly influenced by the characteristics of the taxpaying population, such as number, size and sectoral distribution. A taxable person is an entrepreneur carrying on a commercial business activity on a continuous basis who needs to be registered with the tax office. In a majority of countries, the VAT regimes provide that state, regional, and local government authorities and other bodies governed by public law are not "taxable persons" in respect to activities or transactions they conduct as public authorities. However, government organisations engaged in commercial activities are required to register for VAT in the same manner as private sector traders (Appendix 5.1). The only significant departure from the above treatment occurs under the Irish VAT where no public bodies are considered "taxable persons" – even those engaged in commercial activities (Ernst & Young, 1991:110).

Record-keeping conditions for VAT transactions are universal. Entrepreneurs subject to VAT must keep adequate account books to justify all transactions; maintaining records of all incoming and outgoing invoices for a certain period for auditing purposes (Appendix 5.2). In nearly all countries, an input tax refund is spontaneous. However, in some countries, conditions apply (Appendix 5.3). In the majority of countries small businesses, farmers, banking and insurance, and other financial services receive special treatment (Appendix 5.4). In most countries, special arrangements are made for appeals against the administration's assessments of VAT. Mostly, appeals on VAT are heard initially by an independent VAT Tribunal, but the right to further appeals to higher judicial courts is available (Appendix 5.5). There appears to be no uniformity among countries on the administrative set-up. In some countries, VAT has been administered by the Customs and Excise authorities and in some cases a separate VAT body has been established to administer the tax (Appendix 5.6).

VAT assessment methods are largely dependent upon the staff-taxpayer ratio. For example, in Belgium, the United Kingdom, Ireland, Portugal and Sweden, where the staff-taxpayer ratio is low, VAT audit performance is good and the tax evasion rate is low; but in countries, such as Italy where the staff-taxpayer ratio is high, tax yield is low and the tax evasion rate is high (Table 5.1).

Table 5.1 **Ratio of staff to taxpayer for value-added tax – selected countries**

Country	Year	Ratio
Belgium	..	1:123
Ireland	1984	1:140
United Kingdom	1983	1:149
Cyprus (estimated)	..	1:160
France	1982	1:173
Portugal	1986	1:250
Sweden	1982	1:250
Netherlands	1979	1:280
New Zealand	..	1:350
South Korea	..	1:360
Italy	1978	1:726

Note: ..information not available.

Sources: Tait, A. A., 1988. *Value Added Tax: International Practice and Problems*, Washington, DC: International Monetary Fund:250.
Purohit, M. C., 1993. *Principles and Practices of Value-Added Tax: Lessons for Developing Countries*, Delhi: Gayatri Publications:116.
Holland, G., 1991b. 'VAT Organisational Issues', in A. A, Tait (ed.), *Value-Added Tax: Administrative and Policy Issues*, IMF Occasional Paper 88, Washington, DC: International Monetary Fund:Table1:52.

In the majority of countries, self-assessment, simplification of VAT procedures and changed management programs have helped improve implementation. In most countries, tax offices are transformed into service agencies to assist taxpayers, who are called "clients" and "customers". For example, in South Korea, the Tax Appeals Division has been reoriented into a "Tax Payment Guidance Division" to enhance the quality of its service to taxpayers (Yoingco, forthcoming). New Zealand, Malaysia and the Philippines have set up a "one-stop service counter" in their Revenue Departments to attend to the needs of taxpayers. Public relations units have been established in tax offices in New Zealand, South Korea, Thailand, Australia and Japan to discuss and resolve taxpayer problems expeditiously (Guevara 1990:57).

In the majority of countries, education of taxpayers on various aspects of the VAT system has facilitated understanding between tax administrators and taxpayers. Simulation exercises have been conducted to test the mechanics of VAT computation, filing of returns, and VAT payments (Chang and Recente 1988:29). In addition to advertisements in the media, VAT has been publicised through creative posters, brochures and pamphlets, and electronic displays in strategic places such as railways, highway stations and billboards along main roads, bridges and buses (Yoingco 1988:12).

Training strategies and staff career programs in most countries have been designed to improve staff productivity and quality of work. This has involved enhancing recruitment strategies, reorganising career structures or services, incorporating more flexible employment and salary arrangements, and setting up training programs. For example, in Denmark, Ireland, France, the United Kingdom, New Zealand, South Korea and Indonesia, special arrangements have been made to cater for the training needs of tax personnel (Yoingco 1988:1; Gillis 1990a:240; Commission of the European Communities, 1992:18). Indonesia, Belgium and Ireland have established an in-house Tax Training Centre which provides training on VAT auditing, use of computers and VAT valuation. In New Zealand a "Change Management Program" has been implemented with the objective of training tax personnel to be productive and efficient. Japan has systematised the training of its tax personnel with the establishment of a "Tax College." The Tax College offers progressive training programs relative to the experiences and needs of the National Tax Authority (Yoingco, forthcoming).

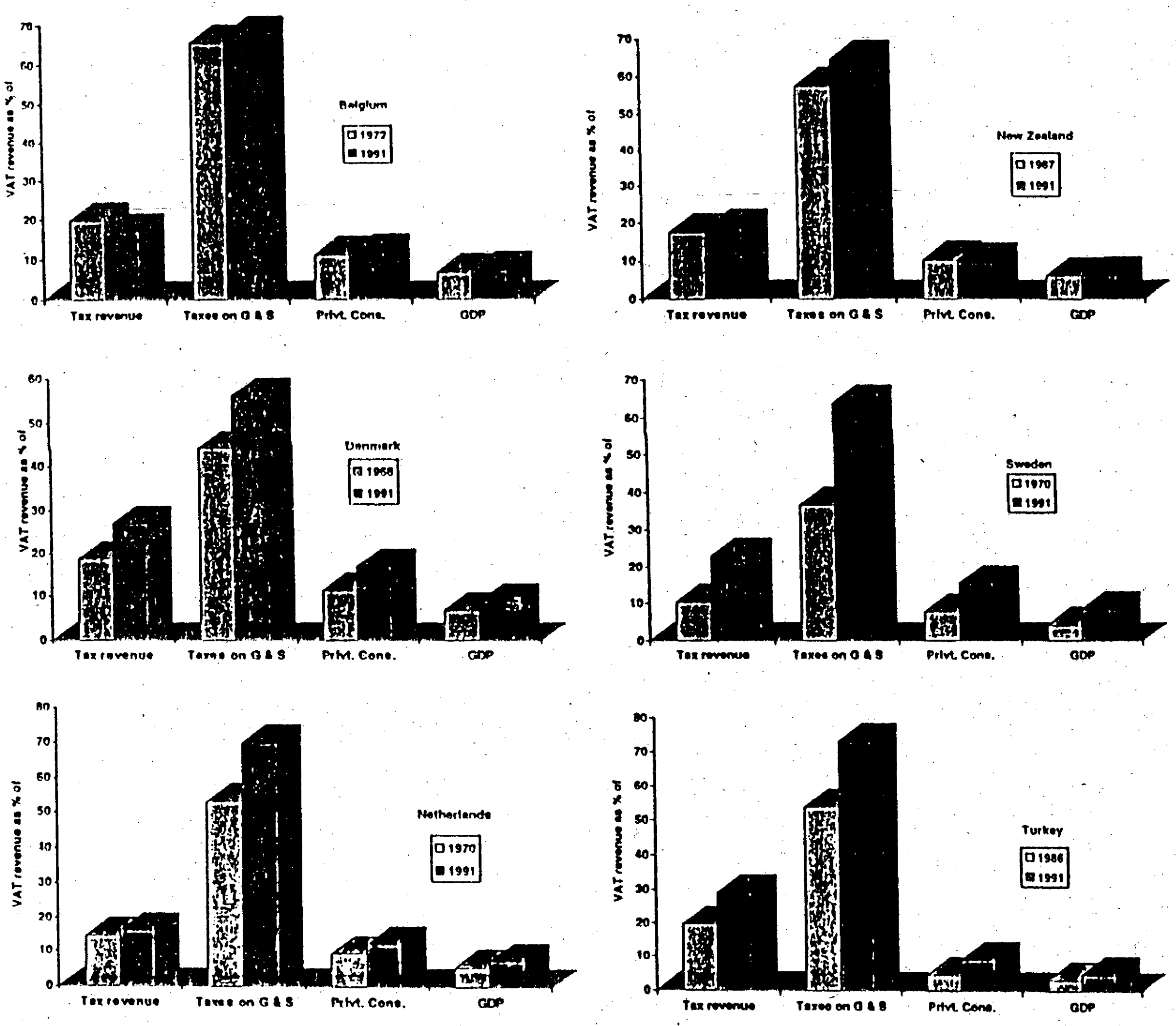
Revenue implications of the VAT

In the majority of countries surveyed, the primary objective of the VAT has been to replace various indirect taxes of equal-yield. Nonetheless, in most countries, the VAT has become an important component of tax reform – to increase tax revenues, to reduce the growing budget deficits, and to permit the allocation of more resources for development expenditures, especially for deficient infrastructure and social sectors. For example, in Turkey, the introduction of the VAT in 1985 contributed to a reduction in the fiscal deficit to 4.2 per cent of GDP in 1990-91 from 10 per cent in 1984 (Kopits and Robinson 1990:199; IMF, 1993a:83).

The VAT occupies a central position in the taxation system of the majority of OECD countries. Of the 12 OECD countries analysed, the VAT share of GDP in nine countries, has increased substantially since implementation. Among these countries, growth of VAT revenues has been most pronounced in the United Kingdom and Sweden. In both countries, the VAT share of GDP has almost doubled (Appendix

5.7). Despite a good start, France, Norway and Germany, on the other hand, have in later years been unsuccessful in maintaining VAT revenue growth. In 1991, eight of the 12 OECD countries collected a higher proportion of revenues from the VAT than they had a year after its adoption. In seven countries, the VAT's share in domestic taxes on goods and services has increased. In seven of the 12 OECD countries, the VAT share of private consumption has risen (Figure 5.1).

Figure 5.1 **Share of value-added tax revenue in total taxes, in domestic goods and services taxes, in private consumption and in GDP– selected OECD countries** (various years)



Notes: Total Tax = Share of VAT revenue in total tax revenue.
Taxes G&S = Share of VAT revenue in domestic goods and services taxes.
Privt. Cons = VAT revenue as a percentage of total private consumption.
GDP = VAT revenue as a percentage of GDP (market prices).

Sources: Appendix 5.7.

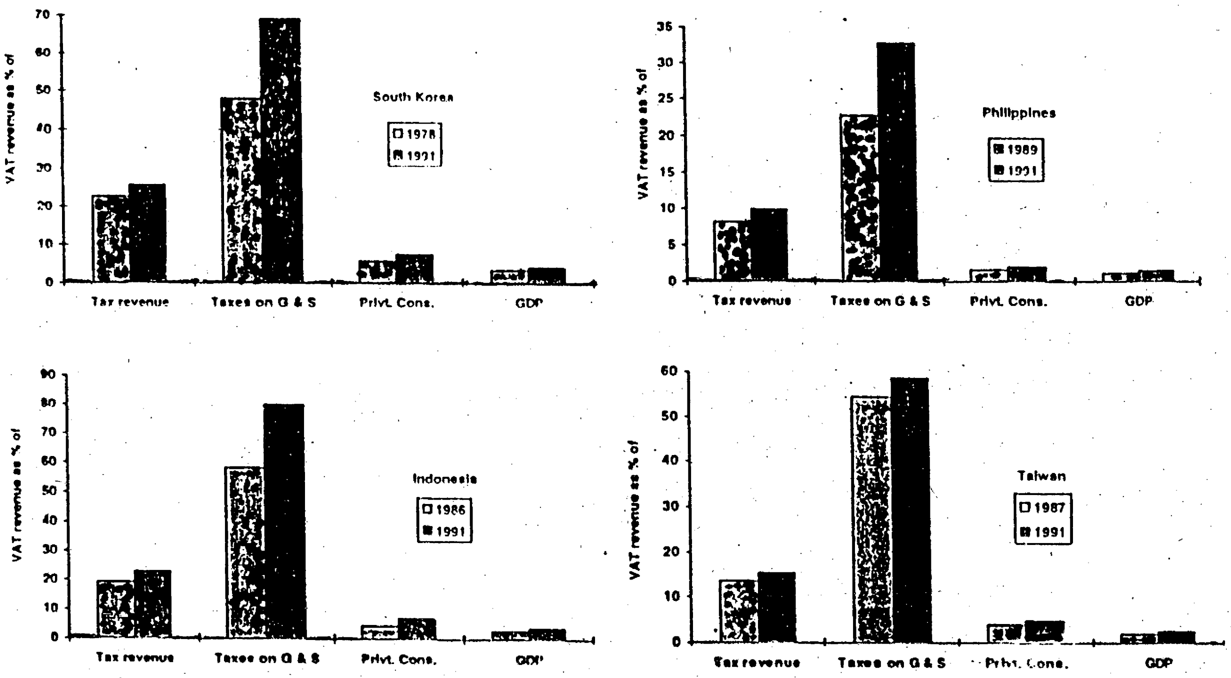
In four of the five Asian countries, the VAT has proved a dependable revenue source. For example, in South Korea in 1976, a year prior to the implementation of the VAT, 663 billion Won of revenue was generated from business taxes, commodity taxes and other indirect taxes (Han, 1990:138). These taxes were replaced by the VAT in 1977. Consequently, the VAT share of GDP has increased from 3.4 per cent in 1978 to 4 per cent in 1991, while its share of total government revenues has increased from 22.7 per cent to 25.6 per cent (Figure 5.2). In 1992, the VAT was the single largest source of government revenue. However, with an almost identical economic structure to most OECD countries, South Korea has generated a relatively low level of VAT revenue in terms of its share of GDP and private consumption (Appendix 5.7).

In Indonesia, the VAT has become the principal source of non-oil and gas taxation revenue (Ridwan *et al.* 1988:81). Since its introduction in April 1985, the VAT has increased from 2.8 per cent of GDP to 3.9 per cent of GDP in 1991 (IMF, 1993a:294). The VAT's share of total tax revenue has increased from 19.3 per cent to 22.8 per cent. In 1991 the VAT contributed 80 per cent of total domestic goods and services taxes – up from 58.4 per cent in 1986 (Figure 5.2). Increases in VAT revenue reflect changes in the rate of tax on selected items, and improvements in the administration of tax collection. VAT coverage, which initially included only the manufacturing sector (with the exception of a tax on petroleum products at the retail level), expanded in 1989 to include goods and services in the wholesale sector. In April 1992, VAT coverage was further expanded to include most goods and services in the retail sector.

On its introduction in the Philippines in 1988, the VAT was projected to be an equal-yield tax for the replaced indirect taxes (Yoingco *et al.* 1988:105). The first two years of the VAT's implementation in the Philippines were problematic. As a ratio of GNP it was only 1.2 per cent in 1988 compared to 1.4 per cent for sales tax in 1987 (the year prior to the VAT's introduction). But, it has gradually improved to 1.7 per cent of GNP in 1994. During its introduction, the VAT has faced opposition from the media and consumer groups, as well as politicians. As a result, in the first three years since its implementation, substantial shortfalls from projections have been experienced (National Tax Research Centre, 1990:193). It appears that the government's administrative capacity has been grossly ineffective in mobilising the revenue potential of the VAT and it has been unable to counter opposition from various interest groups.

Since implementation of the VAT in Taiwan, in 1986, and in Fiji in 1992, there has been a favourable growth in VAT revenues, in terms of its share in total tax revenues, in domestic taxes on goods and services and in GDP (Figure 5.2; Appendix 5.7). In Fiji, the VAT share in total tax revenue – in domestic taxes on goods and services, in private consumption and in GDP – has been substantially higher than the majority of Asian, African and Latin American countries surveyed, and compares favourably with many OECD countries (Appendix 5.7).

Figure 5.2 **Share of value-added tax revenue in total taxes, in domestic goods and services taxes, in private consumption and in GDP– selected Asian countries** (various years)

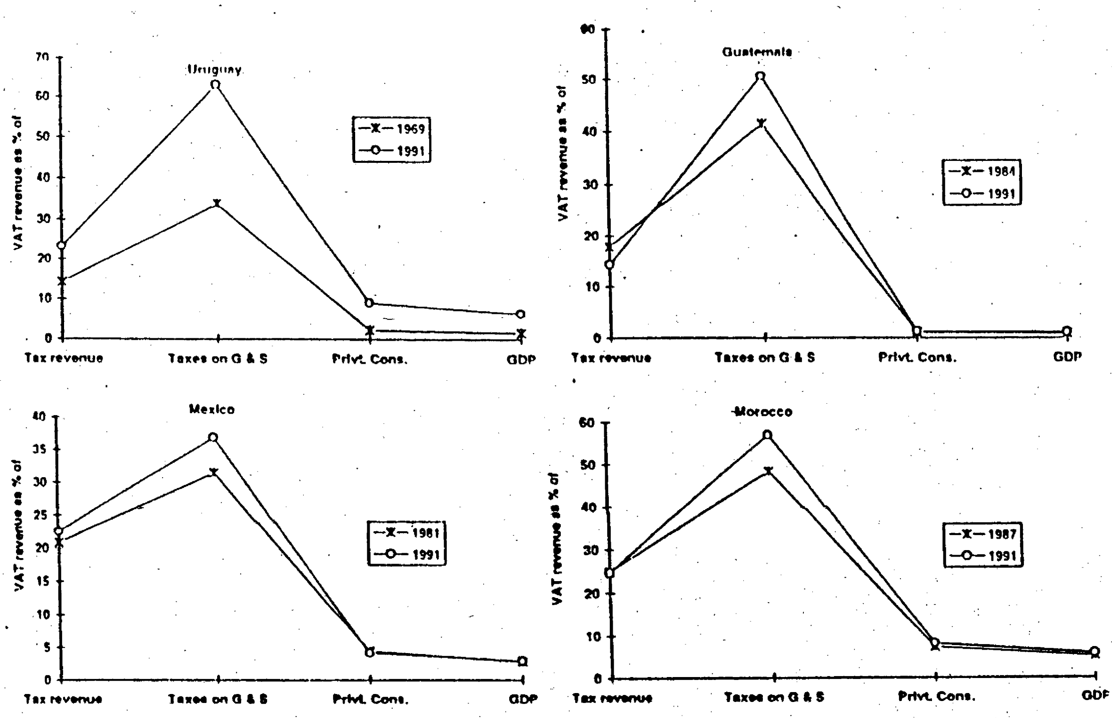


Notes: As per Figure 5.1.
Sources: Appendix 5.7.

Of the African and Latin American countries surveyed, Kenya's VAT performance, at 8.9 per cent of GDP in 1991, has been outstanding (Figure 5.3), and compares favourably with OECD countries. Total tax revenues increased to 2.1 billion Kenya Pounds in 1991 from 1.8 billion Kenya Pounds in 1989, an annual increase of 15 per cent. This increase is partly attributable to the strong performance of the VAT (Republic of Kenya, 1993:81). In 1991, Uruguay and Morocco collected VAT revenues totaling approximately 6 per cent of GDP. The VAT share of total tax revenue – of domestic taxes on goods and services and of private consumption – has been substantially higher than other Latin American countries surveyed (Appendix 5.7). The VAT's performance in Mexico has been weak and in Argentina VAT revenue, as percentage of GDP, has declined from 1.1 per cent of GDP in 1976 to 0.7

per cent in 1991 (Figure 5.3). Among the many weaknesses in implementation in Argentina, the VAT suffers from liberal exemptions granted to promote sectoral and regional objectives. As a result, there has been substantial evasion (Schenone, 1990:120).

Figure 5.3 **Share of value-added tax revenue in total taxes, in domestic goods and services taxes, in private consumption and GDP–selected African and Latin American countries**



Notes: As per Figure 5.1.
Sources: Appendix 5.7.

Administrative and compliance costs of the VAT

The administrative features of the VAT system are significantly different from retail sales taxes and other cascading effect taxes. Because of its large taxpaying population, VAT collection and control requires that substantial amounts of information be processed in order to calculate taxpayers' tax liability. VAT taxpayers are required to maintain input and output sales records for every taxable transaction for the purposes of claiming input tax refunds and for tax office assessment. Thus, the VAT imposes high administrative and compliance costs (Casanegra 1990:177). Different taxpayer populations across countries means that administrative costs vary according to the administrative methods used and the size of the businesses. For example, in Luxembourg which has 19,000 taxpayers, VAT administrative methods are considerably different from Italy, with over 5 million VAT taxpayers (Commission of the European Communities, 1992:9). In countries where the proportion of large firms is higher, such as Germany, France and the United Kingdom, VAT administration is relatively easier, compared with countries where the number of small businesses is large, such as Spain, Italy, Greece and Portugal (Commission of the European Communities, 1992:9).

Studies on VAT administrative and compliance costs are sparse and therefore evidence on VAT administrative and compliance costs is inconclusive. A study undertaken by Sandford and Hasseldine (1992:235-236) on businesses in New Zealand estimated that VAT compliance costs are about 7.3 per cent of total VAT revenues. Another study based on a 1977-78 survey, estimated that VAT administrative costs in the United Kingdom were two per cent of VAT revenue and compliance costs 9.3 per cent (Sandford and Godwin, 1990:208). The burden of VAT compliance costs was found to be higher on small firms. From the 1977-78 survey, it was also estimated that 40 per cent of the compliance costs and approximately 50 per cent of the administrative costs were borne by 69 per cent of the taxpayers who contributed less than 5 per cent to VAT revenues.

However, a follow-up 1984-85 survey by Sandford and Godwin (1990) showed that with improved VAT enforcement and simplification of procedures both administrative and compliance costs have been reduced considerably from the 1977-78 estimates (Table 5.2). Nonetheless, there are complaints about the high compliance cost burden in the United Kingdom. The Common Public Affairs Committee in the United Kingdom in 1994 observed that because of the low level of understanding of the VAT system, it was imposing a heavy burden on businesses. The cost of complying with VAT regulations was estimated to be 1.6 billion British Pounds for traders, nearly four times the cost of administering the VAT system. The Committee further observed that because of the high VAT burden, companies in the United Kingdom under-declared VAT by more than two billion British Pounds in 1992-93 (Tett and Jack, 1994:6).

Table 5.2 **Estimated administrative and compliance costs and value-added taxation in the United Kingdom, 1977-78 and 1984-85** (million British Pounds)

Items	1977-78	1984-85
1. Revenue from VAT	4,200	18,500
2. Administrative costs	85	191
3. Compliance costs	392	940
4. Value of cash benefits[1]	73	495
5. Net compliance costs (3-4)[2]	319	435
6. Administrative costs (as % of revenue)	2.0	1.0
7. Compliance costs (as % of revenue)	9.3	5.1
8. Net compliance costs (as % of revenue)	7.6	2.3

Notes: [1]Calculated using interest rates of 7 per cent for 1977-78 and 10.75 per cent for 1984-85.
[2]No allowance has been made for managerial benefits.

Sources: Sandford, C. and M. Godwin. 1990. 'VAT Administration and Compliance in Britain', in M. Gillis., C. S. Shoup. and G. P. Sicat (eds), *Value Added Taxation in Developing Countries*, Washington, DC: World Bank:210.

Estimates of compliance costs of major Commonwealth taxes in Australia by Pope *et al.* (1993a and 1993b) and Pope (1993) show that VAT compliance costs are substantially below those of other taxes such as taxes on income (Table 5.3). Nonetheless, administrative costs of PAYE tax in Canada, at one per cent of the tax revenues (Vaillancourt, 1987:406-407), and 1.53 per cent in the United Kingdom (Sandford, 1986a:108-110) have been below VAT administrative costs (see Table 5.2).

Table 5.3 **The estimated compliance costs of major Australian Commonwealth taxes, 1990-91**

Tax	Revenue $ million	Compliance costs $ million	Compliance costs As % of revenue
Personal income Tax[1]	39,780	3,642	9.2
Employers' PAYE[2]	43,672	629	1.4
Employers' PPS[2]	1,358	120	8.8
Companies' income tax[1]	14,166	3,246	22.9
Fringe benefit tax[2]	1,169	128	10.9
Wholesale tax (WST)[2]	9,365	179	1.9
Payroll tax[2]	5,709	206	3.6

Notes: [1]1990-91 estimates.
[2]1989-90 estimates.
PAYE = Pay-As-You-Earn.
PPS = Prescribed payments tax system.

Sources: Pope, J., Fayle, R. and Chen, D. L., 1993a. *The Compliance Costs of Employment–Related Taxation of Australia*, Research Study No 17, Sydney: Australian Tax Research Foundation.
Pope, J., Fayle, R. and Chen, D. L., 1993b. *The Compliance Costs of Wholesale Tax in Australia*, Research Study No 19, Sydney: Australian Tax Research Foundation.
Pope, J. 1993. *Policy Implications arising from Compliance Costs of Taxation,* Paper presented to the 1993, Australian Taxation Office Research Conference, Canberra: Commonwealth Treasury.

Economic effects of VAT

Evaluation of the impact of VAT on macroeconomic variables is complex because of the simultaneous interaction of various economic factors. Over the last 15 years, in the majority of countries analysed, economic growth has been weak, and household and business confidence depressed. High interest rates, growing levels of unemployment, fiscal and current account deficits, and build-up of public debt have adversely influenced the economic climate of the majority of countries. Internationally, fluctuating oil prices, the slump in non-oil commodity prices, together with limited access to international capital has severely constrained growth, especially in developing countries (Linn and Wetzel, 1990:9). The introduction of VAT in the majority of countries surveyed, however, has proved to be a reliable revenue source and helped to reduce the revenue-expenditure gap, but in the absence of sufficient empirical research on the impact of VAT it is difficult to be conclusive about the efficiency and neutrality of the VAT.

Simulation analysis suggests that a broad-based consumption tax has a favourable effect on the long-term performance of the economy because of VAT's possibly beneficial impact on capital accumulation (Noguchi, 1990:123). Georgakopoulos' (1975:337) analysis suggests that substitution of indirect taxes with VAT has improved the built-in flexibility of the tax structure in the United Kingdom. In South Korea, Taiwan and Indonesia the VAT provided increasing revenue to support incentives for industrialisation, export promotion and reduced distortion effecting investment climate (World Bank, 1993:229-230). However, as it is safe to assume that there are many other factors that, have influenced the macroeconomic outcome in the post-VAT period, the following analysis does not focus only on VAT, but includes other policy measures.

Effects of VAT on prices

A common experience when adopting VAT is some price-increasing effect (Bollard, 1992:9). In the majority of countries surveyed, therefore, a coordinated set of fiscal, monetary and pricing policies have been used to restrain the impact of VAT's introduction on prices (Tait, 1988:209-10). In South Korea, Indonesia, France, the Netherlands, Norway and Taiwan price control measures have been used effectively to dampen the potential price-wage acceleration after the introduction of VAT (Tait, 1990:30). South Korea, Mexico, Morocco, New Zealand, and the United Kingdom have adopted interventionist policies to control prices at the time of introduction of VAT. For example: a price freeze has been used by Belgium; the United Kingdom adopted price and wages control policies; while the Netherlands adopted a policy of controls on profit margins (Purohit, 1993:20).

Analysis of the experience of the 23 countries surveyed, on the basis of quarterly and annual consumer price index (CPI) changes, shows that consumer prices increased from their pre-VAT introduction levels. Nearly all the countries analysed experienced price rises in the quarter of VAT introduction and in the first and second quarters following. Nonetheless, in the majority of countries, increases in consumer prices have been substantially below the standard-VAT rates (Table 5.4). Only five of the 23 countries – New Zealand, Turkey, Argentina, Uruguay and Mexico – experienced increases in consumer prices above the VAT standard rates in the quarter of VAT implementation. Belgium, France, Germany, Taiwan and Morocco have experienced surprisingly small increases in consumer prices (Table 5.4).

Table 5.4 **Consumer prices (percentage change before and after the VAT introduction) – selected countries**

	Date of VAT introduction	VAT standard rate (%)[1]	Percentage change in consumer prices[2]			
			CPI[2] in quarter before VAT introduction	CPI[2] in quarter of VAT introduction	CPI[2] in 1st quarter after VAT introduction	CPI[2] in 2nd quarter after VAT introduction
OECD countries						
Belgium	Jan. 1971	18.0	129.9	1.8	1.7	1.8
Denmark	July 1967	10.0	122.0	7.9	1.7	1.1
Netherlands	Jan. 1969	12.0	126.3	5.8	2.1	-0.5
France	Jan. 1968	13.6	113.5	1.6	0.7	1.5
Italy	Jan. 1973	12.0	114.4	3.1	4.1	2.8
Luxembourg	Jan. 1970	8.0	119.2	2.8	1.5	0.9
Norway	Jan. 1970	20.0	128.4	8.3	1.7	3.1
New Zealand	Oct. 1986	10.0	113.2	10.1	2.9	4.2
Sweden	Jan. 1969	11.1	150.5	3.6	14.9	-11.3
Germany	Jan. 1968	10.0	110.8	1.5	0.2	0.0
United Kingdom	Apr. 1973	10.0	123.0	3.8	2.1	4.3
Turkey	Jan. 1985	10.0	386.7	47.9	27.8	23.4
Asian and Pacific countries						
South Korea	July 1977	10.0	125.6	4.3	1.1	6.8
Indonesia	Apr. 1985	10.0	97.5	2.9	0.5	0.3
Philippines	Jan. 1988	10.0	107.4	3.5	1.8	1.9
Taiwan	Apr. 1986	5.0	99.6	0.5	1.2	0.5
FijiJuly 1992	10.0	150.7	7.4	-0.1	3.8	
African and Latin American countries						
Kenya	Jan. 1990	17.0	134.6	3.9	4.0	2.0
Guatemala	Aug. 1983	7.0	111.1	3.8	7.1	-2.6
Argentina	Jan. 1975	16.0	496.0	96.0	170.0	641.0
Uruguay	Jan. 1968	14.0	982.0	378.0	270.0	160.0
Morocco	Apr. 1986	19.0	107.6	0.7	0.8	0.8
Mexico	Jan. 1980	10.0	220.2	19.8	13.7	16.7

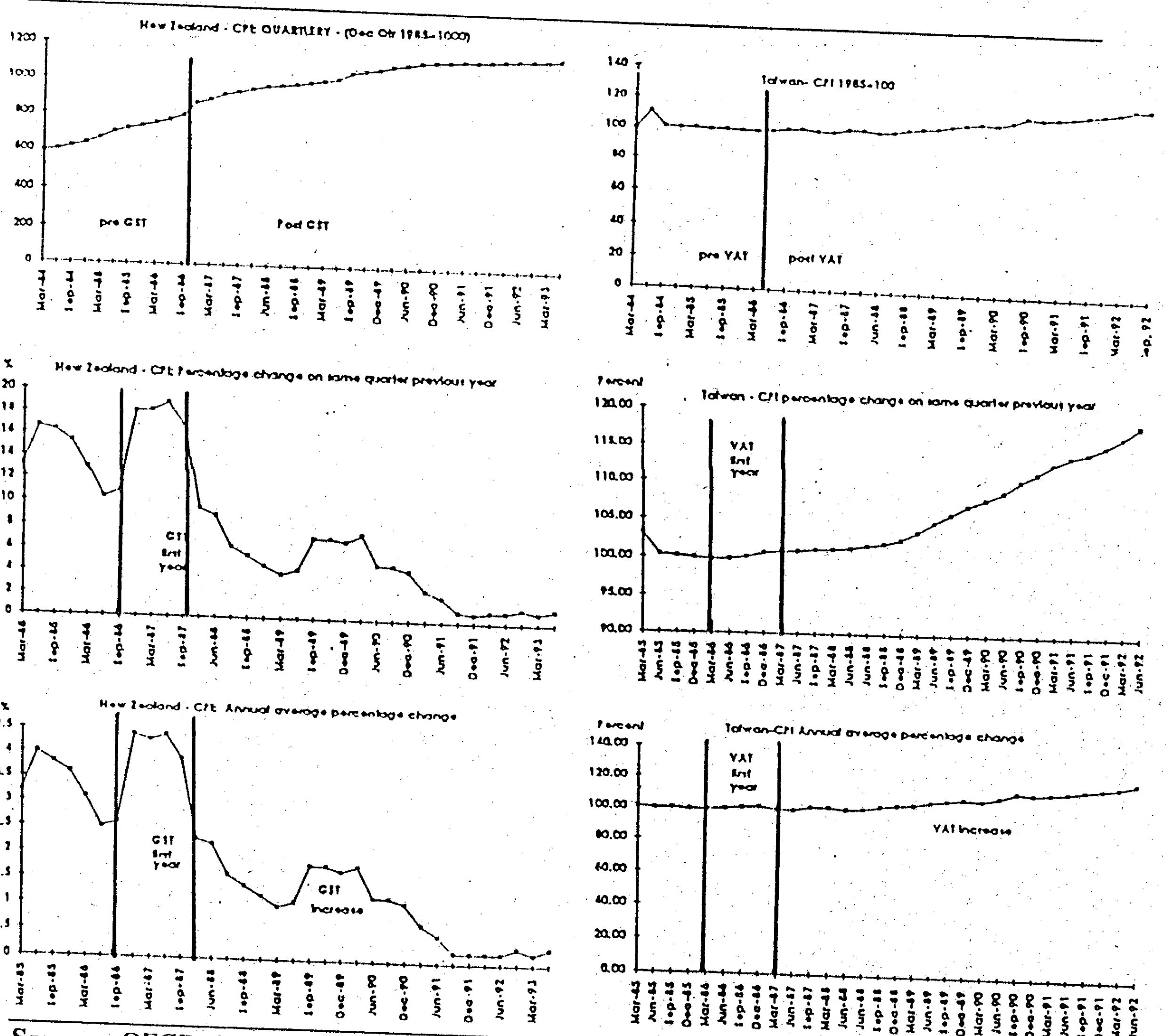
Notes: [1]At the time of value-added tax introduction.
[2]Consumer price index.

Sources: OECD, 1994. *OECD Economic Outlook No. 55*, Paris: OECD: Annex Table 25.
IMF, 1990b. *International Financial Statistics Yearbook 1990*, Washington, DC: International Monetary Fund.
IMF, 1994. *International Financial Statistics Yearbook 1994*, Washington, DC: International Monetary Fund.

In the first quarter after the VAT introduction, OECD countries experienced a contraction in consumer price index. Only two countries – Italy and Sweden – experienced an increase in prices. Among Asian countries, Taiwan experienced only a nominal price increase, while in the other four countries, prices were reduced from the earlier quarter. The African and Latin American Countries experienced mixed behaviour in consumer prices. For example, Kenya, Guatemala, Argentina and

Morocco experienced increases in the CPI, whereas in Uruguay and Mexico consumer prices declined. In the second quarter after the VAT introduction, consumer prices generally declined: only two of the 23 countries (South Korea and Argentina) witnessed a price rise. In the majority of countries, prices stabilised or fell after the implementation of VAT, while VAT revenues continued to increase. Figure 5.4 shows quarterly movements of consumer prices in New Zealand and Taiwan.

Figure 5.4 **Quarterly consumer prices in pre-VAT and post-VAT periods in New Zealand and Taiwan**



Sources: OECD, 1994. *OECD Economic Outlook No. 55*, Paris: OECD: Annex Table 25.
IMF, 1990b. *International Financial Statistics Yearbook 1990*, Washington, DC: International Monetary Fund.
IMF, 1994. *International Financial Statistics Yearbook 1994*, Washington, DC: International Monetary Fund.
Central Bank of China, 1994. *Financial Statistics: Taiwan District*, Taipei: Republic of China.

In 17 of the 23 countries surveyed consumer prices measured on a yearly basis increased from their pre-VAT level. In seven countries – New Zealand, Turkey, South Korea, the Philippines, Argentina, Uruguay and Mexico – CPI changes have been above the VAT standard-rate. In New Zealand, the inflation rate rose from 13.3 per cent in the year of VAT implementation (1986), to 15.7 per cent in 1987 (Appendix 5.8). In New Zealand, 70 per cent of the GST has apparently passed through into the CPI (Grimmond, 1992:8).

In South Korea, Indonesia and Taiwan, the introduction of VAT was followed by a decrease or only a small increase in consumer prices (Yen and Guevara, 1988:60). In South Korea, when the VAT was adopted, the prices of 251 goods were tightly controlled by the government (Han, 1990:139). A new law, "Stabilisation of Price Level", was enacted for the purpose of price control and the law has been enforced strictly. In Taiwan, growth of consumer prices in the post-VAT period was closely monitored. The Ministry of Finance published a *Price Guide* comparing the ratio of pre-tax to post-tax prices. The *Guide* was widely circulated to consumers. Also, Government bonds were issued to reduce domestic liquidity. Prior to the implementation of the VAT, import duties on nearly eight hundred commodities were lowered. The government also reduced or froze prices of various government-controlled goods and services (Yen and Guevara, 1988:56).

In the Philippines, the inflation rate rose from 12.2 per cent in the year of VAT introduction to 14.1 per cent the year after its implementation (Appendix 5.8). It has been argued that increases in prices in the Philippines cannot be solely attributed to VAT (Yoingco *et al.* 1988:105; PIDS, 1994:6). In the absence of an efficient information scheme, sellers of goods and services increased their profit margins over and above the anticipated tax changes (Guevara, 1990:58). In Kenya, the inflation rate rose continuously after the introduction of VAT from 13.3 per cent in 1989, to 15.8 per cent in 1990, and 19.6 per cent in 1991. Besides the VAT, there have been several factors behind the price increase, predominantly, increased domestic liquidity. The rate of growth of money supply rose from an annual rate of 20 per cent at the end of 1990, to 23 per cent by the end of 1991 – considerably above the growth of nominal GDP (Republic of Kenya, 1993:17).

The foregoing analysis suggests that the VAT's effect on prices in the majority of countries surveyed has not been severe. The VAT has not instigated any inflationary impact.

VAT effects on economic growth

As discussed earlier, given the complex interaction of many variables, assessment of the nature and the level of the impact of the VAT's influence on economic activity is difficult. Even assuming the influence of other factors on economic activity is absent, it would still be difficult to isolate the VAT's impact on economic growth and other macroeconomic variables. A switch from income taxes to VAT is likely to have a deflationary impact on economic activity in the short-run, considering a declining proportion of income is consumed as income rises, while a switch from a cascading effect-type tax has either a positive or negative impact. The proponents of consumption tax argue that a beneficial longer-term growth effects may result from the VAT, through its effect in generating a higher level of savings (Feldstein, 1978; Boskin, 1978; Zodrow and McLure, 1990:237) – provided these savings are channelled into productive investments. Realisation of both these conditions, however, is not certain – they are dependent on the investment climate in the country and the risk bearing capacity of private investors.

In the countries surveyed, a mixed pattern of economic growth can be observed in the post-VAT period. One year after VAT implementation, economic growth was lower than in the pre-VAT year in 12 countries, while the remaining 11 countries witnessed positive growth over the pre-VAT level. Growth performance was more favourable in Sweden, Germany, Turkey, South Korea and Taiwan (Appendix 5.9).

VAT effects on savings and investment

Tait (1988:222) argues that the consumption-type VAT promotes savings and investment. Boskin (1978:S-3) argued that taxes on incomes significantly reduce the real net rate of return and retard capital accumulation which causes a substantial waste of resources. Galper and Steuerle (1983) argued that an effective method of providing savings incentives would be to convert individual income tax systems into individual consumption tax systems, because the VAT provides better incentives for capital formation and savings. It has also been argued that the increased savings, from a switch to consumption taxes, increases the capital stock and hence has a positive impact on economic growth and labour productivity (Break, 1985:149; Summers, 1981:541). These arguments are supported by the Yeh (1974) study which found a positive capital formation effect from the adoption of a VAT.

The analysis of 23 countries reveals a mixed pattern of national savings growth in the post-VAT period, relative to the pre-VAT period. Of the 12 OECD countries, five had lower savings rates and seven had higher rates one year after the implementation of VAT. Five years after implementation, the national saving performance in seven of the 12 countries had improved (Appendix 5.10). The majority of the Asian, African and Latin American countries also experienced increasing saving rates in the post-VAT regime.

The VAT impact on capital formation in the post-VAT regime is also mixed. It can be observed that gross fixed capital formation (GFCF) rates in six of the 12 OECD countries, were higher than the pre-VAT level one year after VAT implementation. Nonetheless, in subsequent years, a declining trend in capital formation is observed. In 1991, only two of the 12 OECD countries had fixed capital formation rates above the pre-VAT level (Appendix 5.11). However, all the Asian countries experienced continuous growth in fixed capital formation in the post-VAT periods (Appendix 5.11). For example, in South Korea, the VAT was more conducive to investment than the old indirect tax regime (Choi, 1990b:380). In South Korea, the largest share of refund on capital investment accrued to the manufacturing and electricity and gas sectors. Investment in both sectors increased sharply after the introduction of VAT (Han, 1990:139). In Taiwan, private investment also increased (Yen and Guevara, 1988:61). The majority of African and Latin American countries, however, have been unsuccessful in maintaining their capital formation rates in the years following VAT introduction (Appendix 5.11).

VAT effects on exports

One of the goals of adopting the VAT has been the elimination of tax distortions inhibiting the export sector (Choi, 1983:27, 29; Break, 1985:152). It has been argued that the zero-rated mechanism of the VAT (when based on the destination principle) automatically provides incentives for export promotion (Tait, 1988:223; Han, 1990:140), and thus, the use of VAT improves a country's competitive position in international markets. Little, Scott, and Scitovsky (1970) and McKinnon (1973) also showed that high and differential tariffs on imports caused severe discrimination against and within the foreign trade sector in many developing countries. Lower tariffs and a broad coverage of domestic goods and services under a VAT regime not only provides a broader tax revenue base, but also reduces distortions caused by the tariff structure (McKinnon, 1973:521). Although it is difficult to quantify the impact of the VAT on exports, it has been observed that in the majority of countries surveyed, reform of the indirect tax system in favour of VAT removed some of the tax disadvantages placed on the export sector by the cascading effect indirect tax system. For example, in South Korea, after the introduction of the VAT, exports increased rapidly, from 53.6 billion Won in 1978, to 86.6 billion Won in 1982 (Choi, 1983:27 and 29). In Taiwan, together with other favourable trade developments, the VAT has improved the performance of the export sector. Exports from April to December 1986 grew by 29 per cent, relative to 1985 export levels (Yen and Guevara, 1988:48).

Table 5.5 shows that of the 23 countries analysed, 13 experienced higher export-GDP ratios one year after the introduction of VAT. After five years of VAT implementation, the export-GDP ratio further improved: 15 of the 23 countries had a higher export-GDP ratio. In 1991, the export-GDP ratio in 14 of the 23 countries was above the pre-VAT introduction level. Export sector improvements were more pronounced in OECD countries. The export-GDP ratio was higher in the first year of VAT introduction in seven of the 12 OECD countries (Table 5.5). In the Asian region, South Korea, Indonesia and Taiwan achieved substantial growth in their exports in the post-VAT periods. However, African and Latin American countries performances in the post-VAT years have been less impressive. Other factors have obviously affected the export sector. For example, in Kenya, in the post-VAT period, the volume of exports of coffee and tea (the main foreign exchange earners) were adversely affected by the fall in the world prices of those commodities (Republic of Kenya, 1993:9).

Table 5.5 **Merchandise exports f.o.b[1] (as a percentage of GDP) – selected countries**

	Date of VAT introduction	One year before VAT introduction	One year after VAT introduction	Five year after VAT introduction	Exports in 1991
OECD countries					
Belgium	Jan. 1971	35.1	Plus	Plus	Plus
Denmark	July 1967	21.8	Minus	Minus	Plus
Netherlands	Jan. 1969	31.2	Plus	Plus	Plus
France	Jan. 1968	9.7	Plus	Plus	Plus
Italy	Jan. 1973	13.4	Plus	Plus	Plus
Luxembourg	Jan. 1970	73.1	Minus	Plus	Minus
Norway	Jan. 1970	22.9	Minus	Plus	Plus
New Zealand	Oct. 1986	24.7	Minus	Minus	Minus
Sweden	Jan. 1969	18.1	Plus	Plus	Plus
Germany	Jan. 1968	17.6	Plus	Plus	Plus
United Kingdom	Apr. 1973	14.6	Plus	Plus	Plus
Turkey	Jan. 1985	14.3	Minus	Minus	Minus
Asian and Pacific countries					
South Korea	July 1977	27.0	Minus	Plus	Minus
Indonesia	Apr. 1985	23.7	Minus	Plus	Plus
Philippines	Jan. 1988	17.1	Plus	Plus	Plus
Taiwan	Apr. 1986	49.0	Plus	Minus	Minus
Fiji	July 1992	28.7	..	..	No change
African and Latin American countries					
Kenya	Jan. 1990	11.6	Plus	..	Plus
Guatemala	Aug. 1983	13.4	Minus	Plus	Minus
Argentina	Jan. 1975	8.5	Plus	Minus	Minus
Uruguay	Jan. 1968	9.6	Plus	Plus	Plus
Morocco	Apr. 1986	16.7	Minus	Minus	Minus
Mexico	Jan. 1980	6.5	Plus	Plus	Plus

Notes: ..information not available.
[1]fob = free on board.
Sources: Appendix 5.12.

Conclusions

In the 23 countries surveyed, the VAT has proved a potent tax revenue source. Despite use of exemptions, VAT has provided some neutrality and administrative advantages. Administrative improvements in the taxation system in the majority of countries surveyed have been a product of intensive planning and administrative efforts, coordination between various agencies, and extensive education and information campaigns.

The macroeconomic consequences of VAT, measured in terms of various macroeconomic variables, such as consumer prices, economic growth, savings, investment and exports, appear to vary across countries, but are difficult to isolate because of the concurrent interaction of various economic factors. Notwithstanding, the analysis suggests that in the majority of countries surveyed, introduction of the VAT has not created any economic consequences of a severe nature. The VAT impact on prices in nearly all the countries analysed has been smooth. In many of the countries surveyed, given coordination of fiscal, monetary and price policies, consumer prices have contracted and in many cases been below the growth in the pre-VAT period. This analysis, therefore, suggests that it is not the VAT which instigates inflationary pressures in an economy, but other factors.

The experience of the countries investigated suggests that enhanced staff morale – through greater participation in decision making and information sharing – has improved the work environment substantially. These changes have helped to achieve maximum benefits from the VAT implementation. However, additional efforts are required, in facilitating compliance through simplified legislation and procedures, improved cooperation with taxpayers *via* better information and service, and reinforced attention to taxpayer rights to reduce VAT's administrative and compliance costs.

6

An Outline of the Analytical Framework

An in-depth empirical analysis of various aspects of the VAT system is necessary. A single model applicable to the three study objectives i.e., assessment of VAT revenue productivity, its distributional consequences on different income groups, and taxpayer compliance and administrative feasibility was not appropriate, and therefore, different analytical methods were matched to each of the objectives.

To examine revenue productivity, a simulation of individual federal and provincial government revenue and expenditure items has been undertaken, based on 18 years of time series data. Using this approach the projected level of fiscal deficit in the years 1993-98 has been assessed. The fiscal deficit is defined as total government revenue *minus* total government expenditure. The relationship between dependent and independent variables has been investigated using econometric techniques. Variables were constructed representing major components of government revenues and expenditures for use in the multiple regression analysis. Forecasting of government revenues and expenditures was made on the basis of the estimated regression coefficients. However, domestic and external interest liability for the years 1993-94 to 1997-98 has been calculated on the basis of domestic and external outstanding public debt stock and the increase in public debt each year. Revenues from the VAT have been computed under the assumption that the VAT option is one of the best policy options available to the Pakistan government to improve its fiscal position, i.e., to contain the growth of fiscal deficits and improve resources for the development of social and economic infrastructure. The VAT base has been constructed using the simplest form of the tax with the following features: (i) minimum differentiation of VAT rates; and (ii) a minimum number of exemptions and zero-rating. The results of this analysis are reported in chapter 8.

The Lorenz-curve and Gini-coefficients were used to assess the income group incidence of the tax across national, rural and urban levels. The results of this analysis are reported in chapter 9.

An analysis of VAT administration and taxpayer compliance was made on the basis of a field survey and is reported in chapter 10. The data analysed in the subsequent three chapters comprises a combination of quantitative and qualitative information. Besides secondary sources of data, primary data were gathered in face-to-face interviews and focus group discussions through open-ended and closed-ended questions. Personal interviews with senior tax officials in New Zealand and the Philippines during November-December 1993 (Appendix 6.1) and observations on the operation of VAT in these two countries were used as the basis for interviews in Pakistan. The remainder of this chapter briefly describes the methods of analysis used, variables used, data sources, and comments on the quality of the data.

Analysis of VAT revenue productivity

Outline of the model framework

A fiscal simulation model of government revenues and expenditures was developed using applied econometrics and the research of Lotz and Morss (1967:497), Musgrave (1971:110-118), Hinrichs (1966:12-20), Tanzi, (1969:207-209;1987), Bahl

(1971:592), Fries *et al.*(1982:150), Ahmad and Stern (1991:47) and Naqvi *et al.* (1993:96-97). The model, a combination of behavioural equations and identities, sets out the relationship between the dependent variables and two or more independent variables (details in Appendix 6.2). All equations in the model were estimated independently using ordinary least squares (OLS) with an 18 year estimation period ranging from 1975-76 to 1992-93. Equations were estimated in log-linear form as, for example, $\ln Y_i = \alpha + \beta \ln X_i + \varepsilon_i$.

Where:

Y_i = dependent variable
X_i = independent variable
α = intercept
β_i = estimates coefficient
ε_i = error terms.

Forecasting with the simulation model

Forecasting has been carried out by simulating the model forward in time beyond the estimation period. Diagnostic test found presence of autocorrelation and multicollinearity in some of the model equations. These equations were corrected. All equations in the model have been estimated in nominal terms and forecasts are made in *nominal* terms.

VAT tax base estimates

A VAT without exemptions and with zero-rating limited to exports and purchasers of capital goods is a tax on consumption. The base of the tax is the value of final sales of consumer goods and services which can be derived from the following formula:

GDP at market prices + imports - exports - gross capital formation (1)

In assessing the VAT base, it is useful to begin with an expression for the total value of sales in an economy, both intermediate and final. This is given by the following expression:

$$C_d + I_d + X + IS_d + IS_m + I_m + C_m \qquad (2)$$

Where:

C = value of final sales of consumer goods
I = final sales of capital goods
IS = intermediate sales
X = exports
d, m = subscripts for domestically produced and imported goods.

A VAT without exemptions is levied on all sales, both intermediate and final, however, when there are no exemptions, the tax liability generated by an intermediate sale is offset by the credit received by the purchaser. Since purchases of capital goods and exports are zero-rated, the only sales that generate a net tax liability are sales to consumers. Under this condition the formula for the VAT base would be:

$$C_d + C_m = C \qquad (3)$$

Nonetheless, the VAT base has to be adjusted for several factors, including VAT treatment of non-profit institutions and government non-commercial agencies, before arriving at a net VAT base. Private non-profit institutions are defined as entities which do not operate on a commercial basis. Such institutions include professional welfare organisations (such as the Edhi and Ansar Burni Trusts in Pakistan), fraternal societies, community groups, religious institutions, and other charitable organisations, whereas non-commercial categories of government consumption represent expenditure on defence, law and order, social, economic and community services by the departments and agencies of the federal, provincial, and local governments. Also, for administrative simplicity and reduced administrative and compliance costs, small businesses of the distributive (wholesale and retail) sectors and financial services are exempted. International experience suggests that it is difficult to tax most of these activities. Their inclusion in the tax base would make the number of taxpayers too unmanageable in the implementation phase. A disproportionate amount of administrative resources would be devoted to collecting a small amount of revenue. For this reason most countries imposing a VAT, exempt small business and financial services from VAT (see chapter 4). For the same reason the primary sector in the majority of countries has not been taxed, or taxed lightly (chapter 5). Also, on grounds of social policy and equity, some goods and services such as medical supplies and prescription drugs, residential rents, health and education services, and public transport should be zero-rated or exempted from VAT.

The preceding discussion suggests that two adjustments should be made to aggregate consumption to take account of exemptions: (1) the value of exempted consumer goods must be subtracted; and (2) the value of exempted consumer goods to the exempt sector, and purchases of taxed capital goods by the exempt sector should be added – they should be treated as intermediate sales – because the purchaser, being exempt, does not receive credit for the tax content of the capital goods.

In the absence of an official input-output model for Pakistan, sectoral assessment of the VAT burden and evaluations of exemptions and zero ratings have been made by adjusting the national accounts data and using the technological coefficients matrix constructed by Ahmad *et al.* (1985), which divided the Pakistan economy into 87 sectors. The level of exemptions and zero rated goods and services has been estimated by decomposing the 1992-93 national accounts data: deducting the amount of public and private sector gross capital formation from the sectoral value added estimates (Table 6.1). The public sector consumption expenditure has been derived from the budgets of government bodies. An element of estimation was necessary for the budgets of many local governments. An assumption is made that the structure of the economy, as used by the Ahmad *et al.* (1985) input-output matrix, did not change between 1980-81 – the year for which Ahmad *et al.* estimated the matrix – and 1992-93. This allows the matrix to be used to estimate the value of final sales of exempt products and the value of sales of taxed inputs to the exempt sector in subsequent years. The following steps have been considered before arriving at the value of final sales of exempt products:

(1) The 1992-93 national accounts have been used as the benchmark.

(2) Estimates of gross production of the exempt sectors' value added have been derived directly from national accounts data (Government of Pakistan, 1994:). Sectoral exemptions have been estimated by assuming exemptions of 80 per cent value added in the agricultural sector, 100 per cent in mining and quarrying, 50 per cent of the small scale manufacturing, 80 per cent in the construction sector, 100 per cent public sector, and 100 per cent in services. The estimates of the intermediate consumption of the exempt sectors have been made on the basis of Ahmad *et al.'s* (1985) estimates.

(3) Estimates of exports and imports for the goods sector have been calculated from publications of the Federal Bureau of Statistics and Economic Survey of Pakistan.

(4) The estimate of the VAT base has been increased by the amount of capital goods purchases made by the exempt sectors. The estimate of investment by the exempted sectors has been derived from data on gross fixed capital formation (Appendix 6.4).

Details of the VAT base constructed on the above basis are given in Table 6.1. The potential VAT base, as a ratio of private final consumption, has been used for assessing VAT revenues in the years 1993-94 to 1997-98.

Table 6.1 **The potential revenue base for the value-added tax 1992-93** (billion Pakistan rupees)

1.	Gross domestic product (market prices)	1342
2.	Plus: Imports of goods	284
3.	Less: Capital formation	257
4.	Less: Exports of goods	176
5.	Less: Final demand for exempted goods and services	682
6.	Plus: Taxable inputs in production of exempted goods and services	239
7.	Plus: Adjustment for capital formation by exempted sectors	86
8.	Less: Adjustment for small traders	33
9.	Less: Wholesale-retail margins	39
10.	Potential VAT Base:	764

Sources: Federal Bureau of Statistics, 1992. *Pakistan Statistical Yearbook 1992*, Statistics Division, Federal Bureau of Statistics, Islamabad: Government of Pakistan.
Federal Bureau of Statistics, 1994a. *Foreign Trade Statistics of Pakistan 1992*, Statistics Division, Federal Bureau of Statistics, Karachi: Government of Pakistan.
Federal Bureau of Statistics, 1994b. *National Accounts of Pakistan 1992-93*, Statistics Division, Federal Bureau of Statistics, Islamabad: Government of Pakistan.
Federal Bureau of Statistics, 1994c. *Pakistan Statistical Yearbook 1994*, Statistics Division, Federal Bureau of Statistics, Islamabad: Government of Pakistan.
Government of Pakistan, 1994. *Pakistan Economic Survey 1993-94*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.
Ahmad, E., Barrett, S. and D. Coady., 1985. *Input-Output Matrices for Pakistan 1980-81*, Discussion Paper No. 68, Warwick: Development Economic Research Centre, University of Warwick.

Since estimation of the VAT base using the above approach has been approximated on the basis of various assumptions and an input-output model developed in 1980-81, it is obviously open to error. Therefore, the VAT revenue base has also been estimated under an alternative approach, based on final consumption expenditure. Final consumption expenditure essentially refers to purchases made by individuals or households, governments, and non-profit organisations. Because of perceived problems of measuring the taxable components of financial services, public sector and non-profit organisations in the majority of countries with VAT it is common to exempt or zero-rate banking, insurance and other financial sector transactions, government bodies and non-profit organisations from the VAT (Bakker and Chronican, 1985:5; Scott and Davis, 1985:21; Department of Finance Canada, 1989:55; Kay and Davis, 1990:77-78; Gillis, 1990b:83). In Pakistan, on the basis of Ahmad *et al.* augmented taxable input-ratios (Appendix 6.3), the government sector gross output of approximately rupees 105 billion in 1992-93 could generate rupees 1.5 billion VAT revenue at 15 per cent VAT rate, but because of associated problems of identification, collection and compliance costs the study exempts government sector and non-profit organisations consumption expenditure, along with financial sector transactions and from the final consumption expenditure. The VAT impact on government budget and on different income groups has been assessed on the basis of households final consumption expenditure. The advantage of this approach is that the value of goods and services purchased by households automatically captures the destination principle of the VAT, since it excludes exports and includes imports. The limitation of such an approach is that exemption of certain items from VAT will introduce some tax cascading as VAT-exempt goods are not allowed to receive a rebate for taxes paid on their inputs. These will be passed on to final consumers (partially or fully). This suggests that the effective tax rate on final consumption is slightly higher than the VAT rate assumed by the study. The main data source for this approach is the 1990-91 Household Integrated Economic Survey (HIES). This survey is carried out periodically by Pakistan's Federal Bureau of Statistics and contains information on household income and consumption patterns for urban and rural households.

Household consumption expenditure under HIES 1990-91 (Federal Bureau of Statistics, 1993) is divided into 30 major categories and 102 individual consumption items. Of the 30 major household expenditure categories, 15 categories represent food items, and the remainder include expenditure on fuel and lighting, clothing and footwear, housing and rent, medical care, education, recreation, furniture, and durable and non-durable items. Nonetheless, it appears that the HIES 1990-91 did not include expenditure on various durable items of household expenditure, such as jewellery. An adjustment has been made to include these items in the VAT base. To arrive at the annual VAT base, on a Pakistan-wide basis, the HIES household consumption expenditure estimate has been converted into per capita consumption expenditure and multiplied by the 1992-93 population (119.07 million). Details of these estimates are given in Table 6.2.

Table 6.2 **The value-added tax base for 1992-93 – consumption expenditure estimate** (billion Pakistan rupees)

Expenditure category	Amount
Household expenditure:	
Food and beverages	290.0
Tobacco and chewing products	12.8
Fuel and power	35.4
Clothing and footwear	48.5
Housing and rent	82.8
Medical care and health	17.8
Educational expenditure	9.6
Transport and travel	1.9
Furniture and fixtures and other household equipment	11.1
Recreation, entertainment and cultural services	0.2
Personal care articles	72.6
Personal effects	5.3
Purchase of jewellery	49.8
Other durable goods (radio, TV, VCR, refrigerator)	3.5
Other non-durable goods	9.8
Other consumption expenditure	20.0
Total consumption expenditure/potential VAT base	671.1

Source: Appendix 6.5.

The potential VAT base of rupees 764 billion under the first approach (Table 6.1) and rupees 671 billion under the second approach (Table 6.2 above) show a difference of rupees 93 billion, or approximately 12 per cent. Using a uniform VAT rate of 10 per cent, rupees 76 billion VAT revenues would be generated under the first approach, and rupees 67 billion under the second approach. A difference of rupees 9 billion of VAT revenue under the two approaches is not large. The second approach, however, is appropriate on grounds of convenience for assessing level of exemptions and zero-rating of individual consumption items. The second approach has been used in assessing VAT revenues in the subsequent analysis.

Evaluating the VAT burden on income groups

The VAT's impact on various income groups has been assessed using household consumption expenditure estimate from the HIES 1990-91 (Federal Bureau of Statistics, 1993) data. According to this survey, the income of a household consists of material income in cash or kind earned in exchange for goods and services, and it includes wages and salaries, pensions, contributions by boarders and lodgers, professional fees, interest and dividends, earnings from agricultural activities, business, commercial and industrial undertakings, land rent and other property income, gifts and assistance (relief payments in cash or kind), and social and insurance benefits. Household income also includes remittances from members of the household who are working abroad. Household final consumption expenditure includes outlays on non-durable and durable goods and services out of monthly income in the last 30 days. To estimate the VAT burden on different income groups, household income and expenditure is arranged into six income groups (Table 6.3) by merging 11 of the 1990-91 HIES income groups.

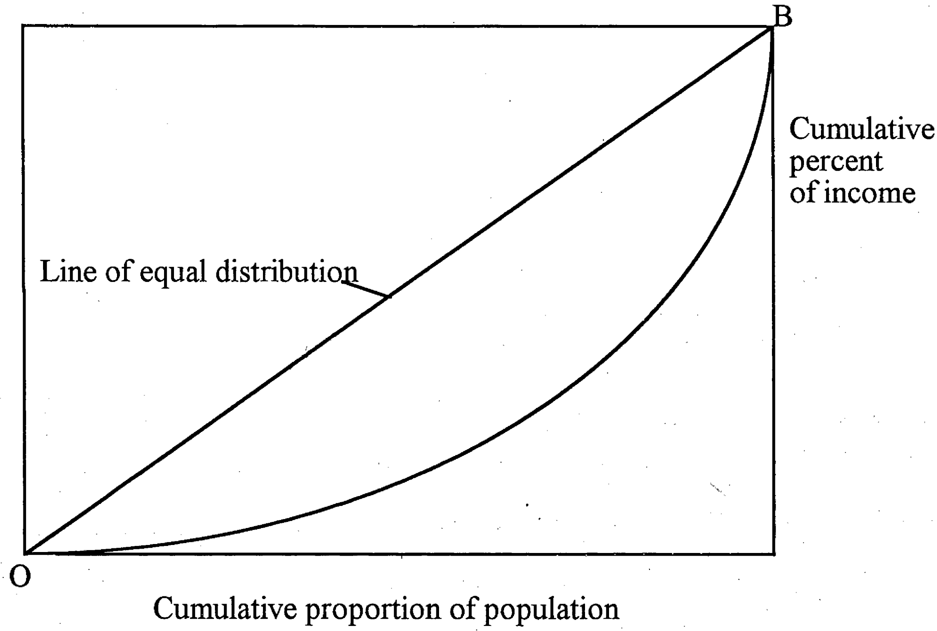
Table 6.3 **Average monthly income per household by income group** (Pakistan rupees)

Income groups	HIES income groups	Proposed income groups
1	≤ 1000	≤ 1500
2	1001 - 1500	1501 - 2500
3	1501 - 2000	2501 - 3500
4	2001 - 2500	3501 - 5000
5	2501 - 3000	5000 - 7000
6	3001 - 3500	7001 and above
7	3501 - 4000	
8	4001 - 5000	
9	5001 - 6000	
10	6001 - 7000	
11	7001 and above	

Source: Federal Bureau of Statistics, 1993. *Household Integrated Economic Survey 1990-91*, Statistics Division, Federal Bureau of Statistics, Karachi: Government of Pakistan.

The "degree of VAT burden" has been estimated by following the traditional absolute incidence in a partial equilibrium framework instead of using the differential incidence approach. The shares of total income accruing to various groups have been examined by calculating the net VAT burden on each group (VAT-sales tax). Tax burdens have been measured through a graphic representation known as the Lorenz-curve (LC) and Gini Coefficients (Atkinson, 1970:244). The Lorenz-curve relates the cumulative proportion of income units to the cumulative proportion of income received when units are arranged in ascending order of income (Kakwani, 1977:719). If all incomes were equal, the LC would lie along the 45° line, the line of perfect equality (Figure 6.1). Otherwise, a plot of the cumulative proportion of the population running from zero to unity along the horizontal axis will show the cumulative population share, *vis-a-vis* the cumulative proportion of total income received by various income units of the population (Chakarvarty, 1990:1).

Figure 6.1 **Distribution of income under the Lorenz-curve**



the Lorenz relationship provides a partial ordering: only some pairs of distributions can be compared (Lambert, 1993:35). Consequently, the Gini-coefficient has been employed widely to measure income distribution: by Samuelson (1967) and Atkinson (1970) in the determination of income inequality; by Yitzhaki (1983) for the measuring of risks in portfolio analysis; and by Kendall and Stuart (1977) for assessing absolute differences between observations of a random variable. The Gini-coefficient is equal to the expected absolute difference in income, relative to the mean, between any two persons drawn at random from the population (Kendall and Stuart, 1969:47; Dorfman, 1979:147). In effect, it measures the area between the Lorenz-curve and the 45° line as a fraction of the total area under the 45° line. For a given income distribution, the Gini-coefficient (G) is defined as (Adams, 1989:59):

$$G = 1 + \frac{1}{H} - \frac{2}{HY}\sum_{1}^{n} p(h)y^{h} \qquad (4)$$

Where:

G = Gini Coefficient
H = Number of units
y^h = Quantity over which inequality is measured
Y = Total inequality
p(h) = Rank assigned to household *h* ranked by *y*.

Besides using it to assess the VAT burden by income group, the Gini-coefficient is also used to assess the welfare loss or gain for each income group in terms of the following equation (Atkinson and Micklewright, 1992:26):

per capita post-VAT income *times* (1 - Gini) (5)

Evaluating taxpayer compliance and VAT administrative feasibility

Assessment of taxpayer compliance and administrative feasibility is important because these two elements of the VAT system operate inter-dependently in such a manner that a defect in either one can cause severe distortion in the system. Experience of VAT in the majority of countries surveyed suggests that the tax is more complicated to administer than any other form of consumption tax (chapter 5), particularly in an economy like Pakistan, where the majority of the population is illiterate, small business forms a large part of business activities, proprietors often keep few or no business records, and barter exchange of goods and services is not regulated. Successful implementation requires wide dissemination of the administrative network so that both tax administrator and taxpayer understand the system precisely and their areas of responsibility.

The implementation plan for VAT, therefore, should be worked out clearly, setting targets for each activity. Various questions have to be resolved before introduction, such as, whether the VAT should be introduced up to the manufacturing level, or wholesale level, and whether it should be applied to all sales of goods and services up to the retail level. Also important, are decisions on the exclusion of commodities, transactions, and types of activities from the VAT base. One of the most important decisions to be made before introduction, is who is responsible for its administration. In many countries, a whole new administrative machinery has been created with central and regional offices and service centres. It is also necessary to consider staff requirements for its implementation and administration and compliance costs. Field staff need a fair knowledge of the business organisations and people likely to be taxed. This requires proper training of field staff and an incentive-based service structure.

Political acceptance of the VAT is important. The experience of many countries suggests that without political will, implementation of a broad-based VAT, covering all stages of production and distribution, will be difficult. Gaining political favour for the VAT, requires widespread discussion of the tax with the general public and business community.

The field survey

The field-work segment of research was undertaken in January-April 1994, to obtain responses from various groups to most of the questions raised in the preceding paragraphs. A sample survey using five different questionnaires was designed. Each of the questionnaires was divided into three sections. Section one elicited background and personal information about the respondent's education, employment status and family size. Personal background information, although not directly related to the assessment of the objectives, was included with the consideration that it might help in understanding the respondent. The format of questions was predominantly in closed-end form, but some open-ended questions were included to allow respondents to add suggestions on how to improve VAT administration and the government's financial position. Of the five questionnaires, questionnaire one was designed to solicit views of senior executives associated with tax policy at the federal and provincial government level. This part of the questionnaire benefited greatly from my discussions with tax officials in New Zealand and the Philippines. Some tax practitioners and researchers were also interviewed (Appendix 6.1). Questionnaire two was prepared for tax administrators working in the field. Questionnaire three was aimed at grassroots politicians, questionnaire four for business entities, and, questionnaire five for the general public.

Geographically, the survey covered two districts of each of the four provinces of Pakistan. These districts were selected on the grounds that one district should represent an industrial base and an organised urban sector in which, parallel to manufacturing activities, financial and other commercial activities form a large part of the service sector. The second district in each province was selected on the basis of its representation of an agricultural base in which commercial activities were predominantly based on trading of primary agricultural goods. This division was important from the point of view of ascertaining the opinions of industrial, commercial and agricultural sectors on VAT administration and taxpayer compliance. Primarily, the field survey had the following objectives: (i) to measure taxpayer perception of an equitable and fair tax structure; (ii) to assess the level of public compliance with VAT and determine, from the taxpayer's point of view, the problems that were likely to influence VAT's implementation; and (iii) to assess the adequacy and effectiveness of the existing organisations, functions, staff and procedures from the tax officials' point of view.

At the policy making level the questions were limited to the political, technical, and administrative feasibility of the VAT. In-depth interviews with field tax administrators focused primarily on their service conditions, prospects for promotion, training and other incentives. Their views were also solicited on the implementation of the VAT. Questioning of grassroots politicians, individually, as well as in focus groups, covered many aspects of area development they were representing. Discussion with this group focused mainly on the availability of public utilities, such as education, health, drinking water, electricity, roads, public transport, sewerage and so on. Their views were specifically sought on whether the community was willing to participate in the provision of public goods by paying user charges and taxes. Discussions with business concerns largely focussed on their business, tax payments, record keeping and acceptance of VAT. The sample of business entities included all types of businesses, from large industries to retail level business establishments. Finally, the views of the general public individually, and as focus group participants, were obtained through direct questions on their income and expenditure. Prior to the individual interviews, six focus group discussions of 8-10 people were used to ascertain responses to the questions. In total, 232 sample interviews were conducted, as detailed in table 6.4.

Table 6.4 **Distribution of the field survey respondents**

Districts	Tax head office	Field tax office	Area councillors	Business entities	Individuals	Total
Islamabad (FCT)[1]	21	0	0	0	0	21
Punjab Province						
Rawalpindi	0	4	3	5	13	25
Faisalabad	0	2	2	6	10	20
Sindh Province						
Karachi	4	7	2	8	16	37
Sukkur	0	4	7	6	11	28
NWFP[2] Province						
Peshawar	0	5	6	11	22	44
Abbottabad	0	2	5	8	7	22
Baluchistan Province						
Quetta	1	3	3	6	8	21
Pashin	0	1	4	4	5	14
Total respondent	26	28	32	54	92	232

Note: [1]Federal Capital territory.
[2]NWFP = North West Frontier Province

Source: Field survey undertaken in Pakistan for the study during January-April 1994.

Data sources

The primary sources of data for the simulation of the fiscal model were the Government of Pakistan's federal and provincial budget documents, foreign exchange budgets, annual and medium-term economic development plans, Pakistan Economic Surveys, State Bank of Pakistan's Annual Reports and National Accounts of Pakistan, and the Household Integrated Economic Survey (HIES) 1990-91. Information on Pakistan's government finance and national accounts was also collected from the United Nations Yearbooks on National Accounts, the International Monetary Fund's *Government Finance Statistics Year Books and International Financial Statistics.*

For forecasting budgetary revenues and expenditures, the Government of Pakistan's eighth five year plan (1993-98) projections of growth rates of exogenous variables, such as gross domestic product and gross national product, price assumptions, industrial production targets in large scale and small scale manufacturing, imports and exports, and other relevant information were used (Appendix 6.4).

The data sources for assessing the burden of the VAT on different income groups were the 1990-91 HIES and the Eight Five Year Plan (1994-98). The bulk of the research data has been derived from personal interviews, where respondents were chosen at random. The information collected was analysed in order to assess the VAT's administrative feasibility and taxpayer compliance by measuring frequencies and establishing relationships between variables through cross tabulation.

Limitations of the data

Data collected from the HIES 1990-91 sample survey suffers from the following limitations:

i) Wide variations in consumption patterns from area to area, even from household to household;

ii) Under-estimation of household expenditure, mainly due to non-marketable consumption; and

iii) Under-estimation of expenditure in higher income households. HIES did not separately include large expenditures for durable goods such as cars, and other luxury items such as refrigerators and washing machines.

The Government of Pakistan's documents on national accounts do not provide sectoral and itemised information on private and public consumption, and details on household income. Data published on Pakistan by international agencies, such as the United Nations document on National Accounts, also fail to include the relevant information. In the absence of secondary information, a number of adjustments have been made on the basis of informed estimates and experience from other countries'. Use of the adjusted data, therefore, has its own limitations on the analytical outcome. Furthermore, interviews about taxation in a developing country like Pakistan, are not a forum where the respondents (especially individuals and business entities) reveal their feelings honestly. Despite cautious efforts, it is possible that the information provided by various groups may reflect personal biases on various issues.

7

Revenue Productivity of the Value Added Tax

This chapter presents the regression results from estimation of the equation with model and the results of simulation exercises with the model of the Pakistan Government's revenue and expenditure, to analyse the government's financial situation under differing circumstances. The revenue block of the model (Appendix 6.2) contains 12 individual equations explaining direct and indirect taxes and non-tax revenue; the expenditure block contains ten equations representing non-development (current) and development expenditure. The growth of government revenue and expenditure is sensitive to domestic political pressures and international events. For this reason two dummy variables are used to capture the influence of domestic political developments and the impact of worldwide recession during 1985-87 and 1988-93 on major items of government revenue and expenditure.

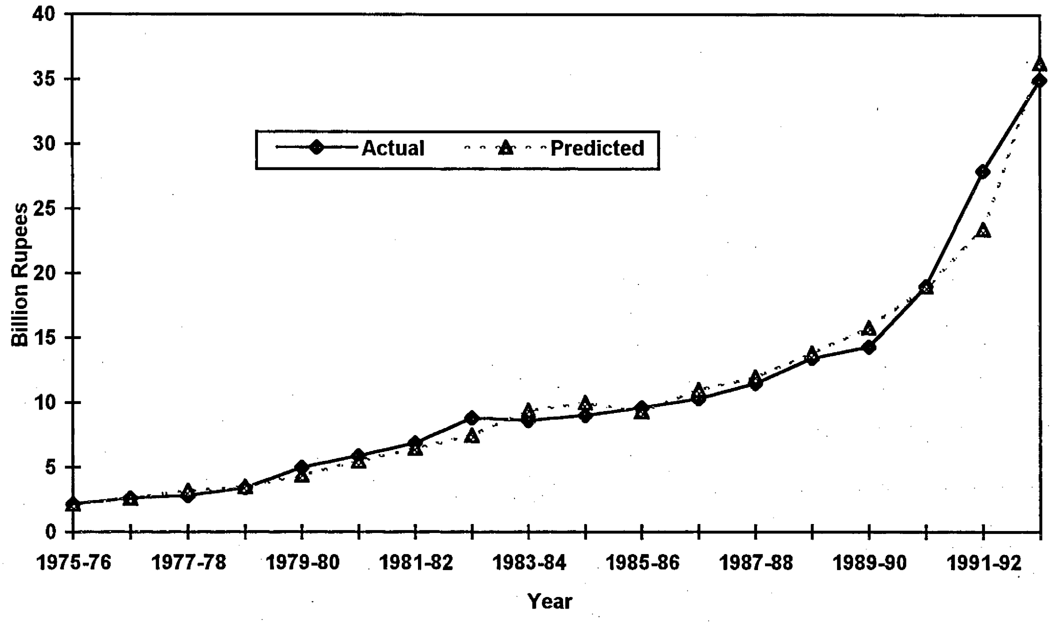
The results of empirical tests indicate that the majority of the equations fit well and most of the estimated coefficients are statistically significant and plausible. The actual and predicted series of government revenue and government expenditure are reasonably close as indicated by correlation. The estimated parameters have the right sign, and their computed values are consistent with *a priori* expectations. All 22 estimated slopes coefficients are statistically significant - 21 at the one-per cent level. In some cases, the dummy coefficients are statistically insignificant which indicates that the events proxied had little or no effect on various taxes and expenditure. The forecasting performance of the model is satisfactory. In most cases the predicted error represents a relatively small fraction of the actual changes in the variables. Figures 1 to 8 in the subsequent sections show the trend of the actual and the predicted series for major taxes and expenditure.

Estimation results

Government revenue equations

The majority of the parameters estimated in the tax and non-tax revenue equations are statistically highly significant. Results of equation (1) in Table 7.1 below show that taxes on income and corporate profits are significantly related to non-agricultural incomes, which is defined as total income less agricultural income. The positive statistical relationship, i.e., t-statistics above 3, adjusted R^2 at 0.97 and F-statistics, signify that the coefficient of the non-agricultural income variable is highly significant. The model predicts the actual series from 1975-76 to 1992-93 with a high degree of accuracy, despite several discretionary changes in the tax rates and high rates of inflation during the estimation period (Figure 7.1). The negative sign of the dummy coefficients suggests that income tax growth has been negatively affected by domestic and external events.

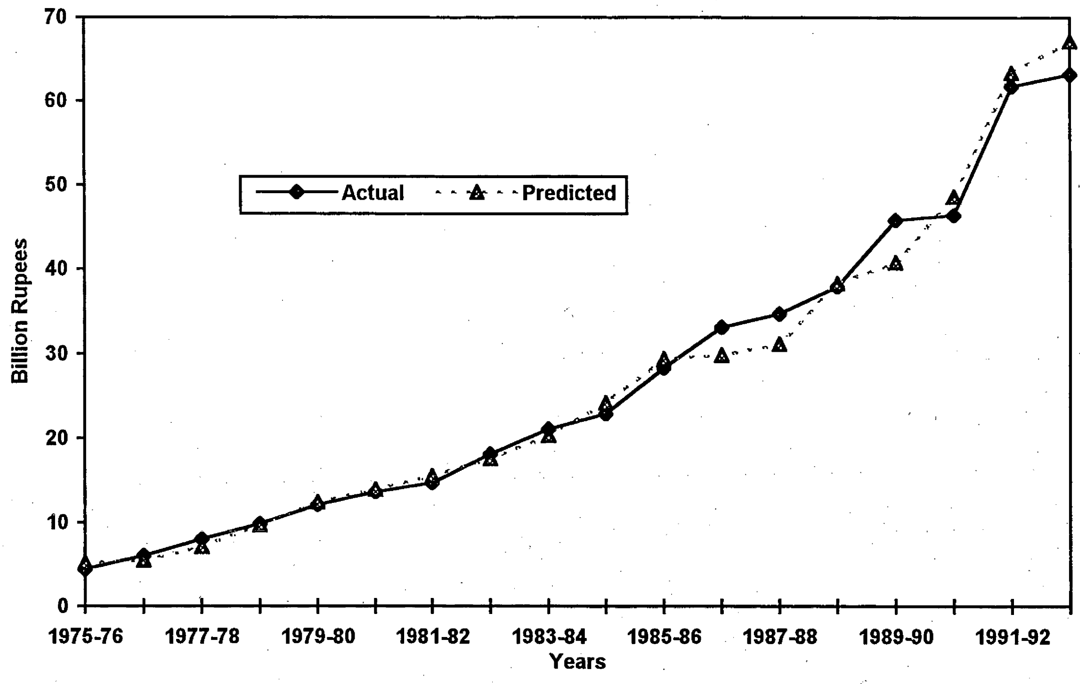
Figure 7.1 **Growth pattern of actual and predicted income tax revenue from 1975-76 to 1992-93** (billion Pakistan rupees)



Sources: Government of Pakistan, 1980. *Pakistan Economic Survey 1979-80*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and 2.3 and simulation model's predicted values.

Regression results of equations (3) and (4) relating to custom duties show that the estimated equations are extremely useful because of their high explanatory power. The statistically significant magnitude of equation (3) relating to imports duties indicates a strong relationship between the dependent and independent variables. Figure 7.2 shows that actual import duties are closely convergent to the predicted values, except in the years 1986-87 and 1992-93. The statistical relationship of equation (4) on export duties is also highly significant. However, as discussed earlier (chapter 2), export duties are not used by the government to generate revenue and, therefore, their share in total revenue is negligible.

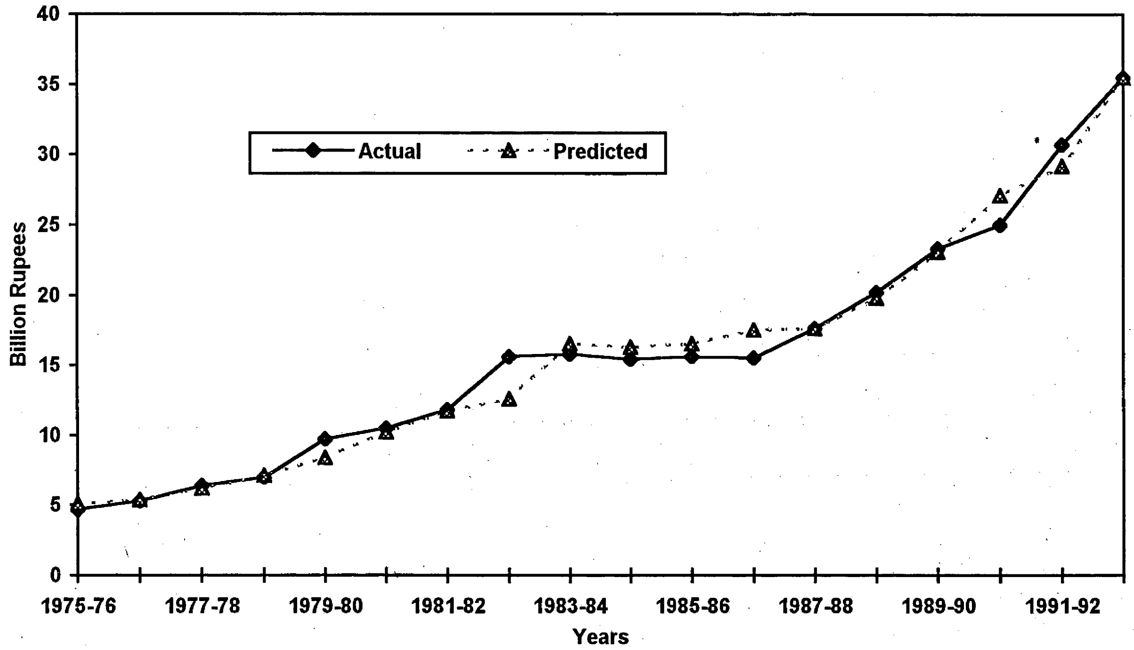
Figure 7.2 **Growth pattern of actual and predicted import duties revenue from 1975-76 to 1992-93** (billion Pakistan rupees)



Sources: Government of Pakistan, 1980. *Pakistan Economic Survey 1979-80,* Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and 2.3 and simulation model's predicted values.

The estimated parameters of equations (5) and (6) relating to taxes on domestic production are found to be positively related to the value added in the large scale manufacturing sector. Equation (5) on excise duties shows that the size of the associated coefficients is reasonable. The overall 'fit' of the equations is good (Figure 7.3). However, the impact of the dummy variable in the case of excise duties is insignificant.

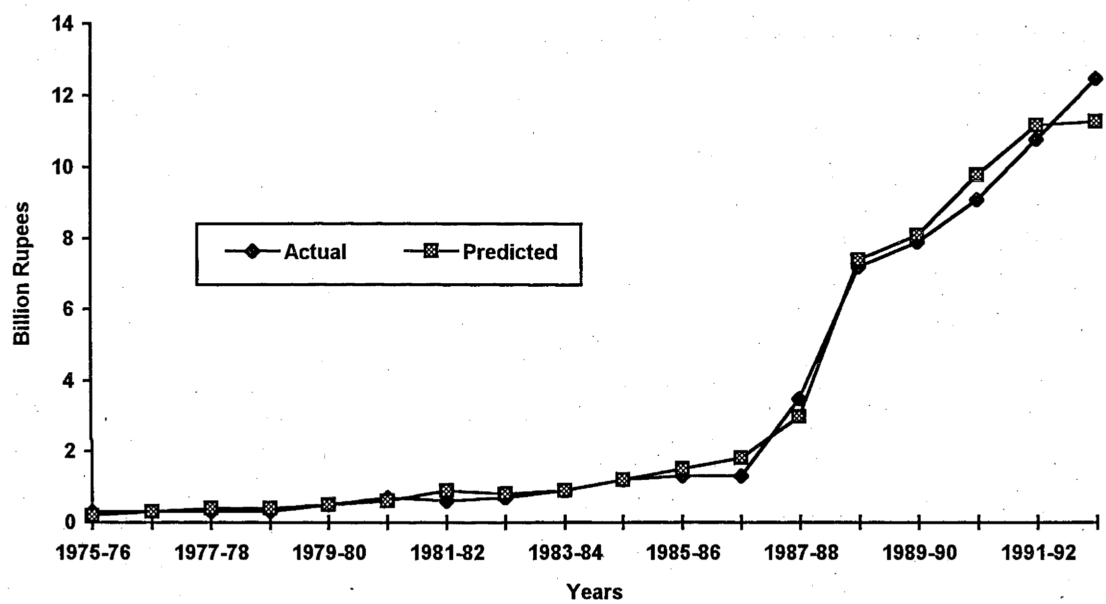
Figure 7.3 **Growth pattern of actual and predicted excise duties revenue from 1975-76 to 1992-93** (billion Pakistan rupees)



Sources: Government of Pakistan, 1980. *Pakistan Economic Survey 1979-80,* Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and 2.3 and simulation model's predicted values.

Equation (6) relating to sales tax on domestic production with an elasticity of 1.55 and adjusted R^2 = 0.81 indicates the impact of the sales tax burden on the manufacturing sector. In 1993-94, approximately 61 per cent of the total domestic sales tax collected came from only 16 commodities of the nearly 550 commodities subject to domestic sales tax; further, four commodities, *viz.*, cement (16.9 per cent); cigarettes (11.6 per cent); iron and steel products (7 per cent) and lubricating oils and oils additives (5.7 per cent) have contributed approximately 41 per cent of the total domestic sales tax. The majority of these commodities such as cement and tobacco were also heavily liable to excise duties (Revenue Division, 1993). The impact of government policy to broaden the sales tax coverage on domestic production and imports since 1986-87 is associated with measures taken by the government to broaden its coverage on imports and local production, including increase in the standard rate from 10 per cent to 12.5 per cent; from 12.5 per cent to 15 per cent and 15 per cent to 20 per cent (Revenue Division, 1993:105). As a result of these measures the share of sales tax collection in total tax revenue fluctuated between 7.7 per cent to 13.1 per cent during 1986-87 and 1992-93 (Appendix 2.2 and 2.3). The impact of these measures is apparent from the behaviour of actual and predicted sales tax revenue series (Figure 7.4 and 7.5).

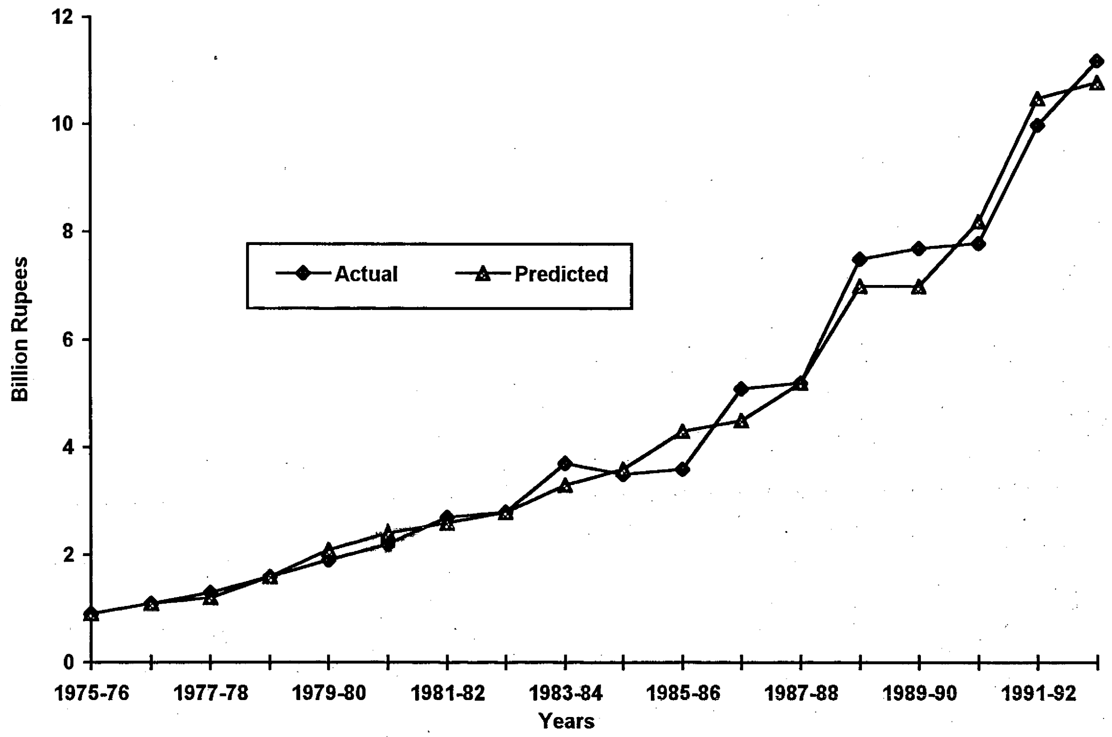
Figure 7.4 **Growth pattern of actual and predicted domestic sales tax revenue from 1975-76 to 1992-93** (billion Pakistan rupees)



Sources: Government of Pakistan, 1980. *Pakistan Economic Survey 1979-80*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and 2.3 and simulation model's predicted values.

Equation (7) relating to the sales tax on imports shows that sales tax on imports is positively related to its base, that is, total imports. The parameters associated with the equation show high explanatory power (Figure 7.5).

Figure 7.5 **Growth pattern of actual and predicted revenue from sales tax on imports from 1975-76 to 1992-93** (billion Pakistan rupees)



Sources: Government of Pakistan, 1980. *Pakistan Economic Survey 1979-80*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and 2.3 and simulation model's predicted values.

Equations (10) and (11) relating to motor vehicle taxes and stamp duties, two taxes levied by the provincial governments, show that these taxes are positively related to the gross national product (GNP) and are highly significant statistically at the one per cent significance level. The relative stability of the estimated parameters of equation (12) relating to non-tax revenue, including the contribution of autonomous bodies, indicates a statistically significant relationship between GNP and the growth of non-tax revenue.

Table 7.1 Results of regression equations on Pakistan government revenue

No. of equation	$\bar{R}^2$	D.W	F[1]
Revenue block			
(1) Income and corporation taxes			
$Ln\ T_y = -4.32 + 1.13LnY_{nang} - 0.25D_1 - 0.16D_2$ (-15.817)* (22.800)* (-3.172)* (-1.874)	0.97	1.83	188.630
(2) Other direct taxes			
$Ln\ T_{otdir} = -4.68 + 0.77LnY_{nag}$ (-8.881)* (8.462)*	0.80	1.90	71.176
(3) Import duties			
$Ln\ T_m = -1.50 + 1.04LnM_t + 0.21D_2$ (-9.445)* (28.725)* (2.995)*	0.97	1.60	295.558
(4) Export duties			
$Ln\ T_x = -4.03 + 1.05LnX_i$ (-4.296)* (4.134)*	0.52	1.85	17.089
(5) Excise duties			
$Ln\ T_{exc} = -0.45 + 0.81LnY_{manl} - 0.07D_1$ (-2.097)** (14.226)* (-1.080)	0.85	1.85	46.231
(6) Sales tax on domestic production			
$Ln\ S_{dom} = -5.55 + 1.55LnY_{manl} + 0.39D_1$ (-7.502)* (8.031)* (1.941)**	0.81	1.50	36.736
(7) Sales tax on imports			
$Ln\ S_{tm} = -2.88 + 0.93LnM_t + 0.20D_1 + 09D_2$ (-22.509)* (28.911)* (3.711) * (1.554)	0.99	2.29	801.596
(8) Development surcharges			
$Ln\ Sur_{dev} = -3.47 + 1.25LnY_{manl}$ (-6.334)* (8.827)*	0.80	2.08	67.599
(9) Motor vehicle tax			
$Ln\ T_{mv} = -5.70 + 0.84LnY_g$ (-20.472)* (18.510)*	0.95	2.00	336.323
(10) Stamp duties			
$Ln\ D_{stmp} = -5.25 + 0.87LnY_g$ (-10.721)* (10.942)*	0.87	2.07	116.846
(11) Other indirect taxes			
$Ln\ T_{otind} = -4.3 + 0.65LnY_g$ (-2.136)** (1.979)**	0.15	1.65	3.885
(12) Non-tax revenue[2]			
$Ln\ N_{tr} = -4.10 + 1.13LnY_g + 0.16D_1$ (-11.692)* (18.917)* (1.767)	0.97	1.85	296.887

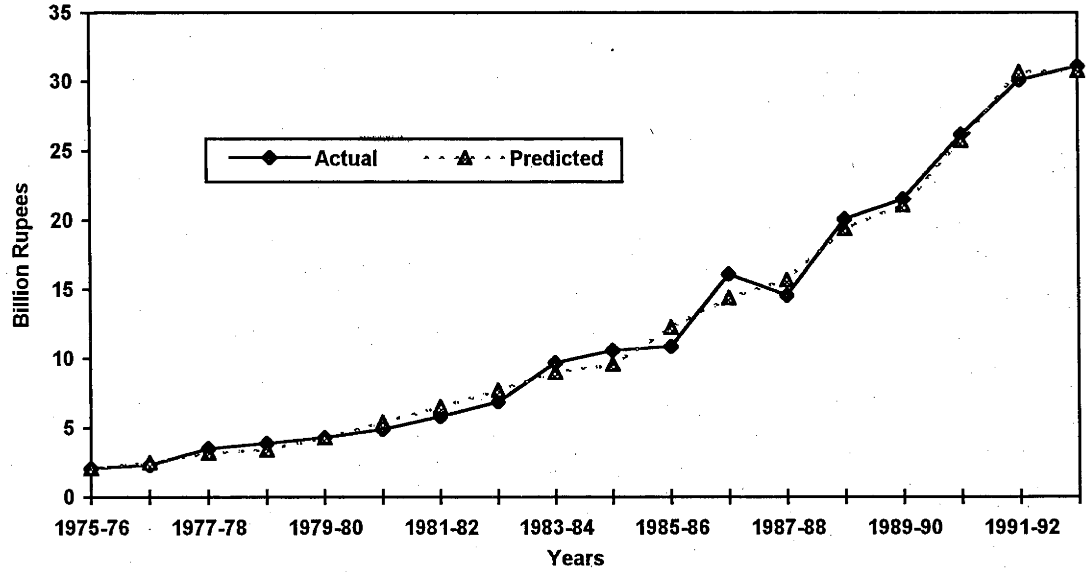
Notes: -t-statistics are in parentheses. The significance is determined as follows:
*the coefficient is significant at 1% level. **the coefficient is significant at 5% level.
[1]F-statistic (zero slopes).
[2]Includes contribution by public sector autonomous bodies under the budget.

Source: Author's computation.

Government expenditure equations

The empirical results verify the ability of the simulation model to 'track' accurately the (actual) historical behaviour of government expenditure during the sample period. The regression equations (1) to (9) of Table 7.2 below present strong evidence on the growth pattern of current expenditure. In the majority of cases, the parameters in the estimated equations are significant at the one per cent level. The defence expenditure elasticity of 1.05 and domestic interest payments elasticity of 1.30, the two major components of the government's current expenditure, show the major sources of the continuous growth of current expenditure. Equation (1) of Table 7.2 indicates a positive relationship between administrative expenditure and GNP. Growth in the Pakistan Government's administrative expenditure is influenced both by the growth of the economy and the domestic political context (Figure 7.6).

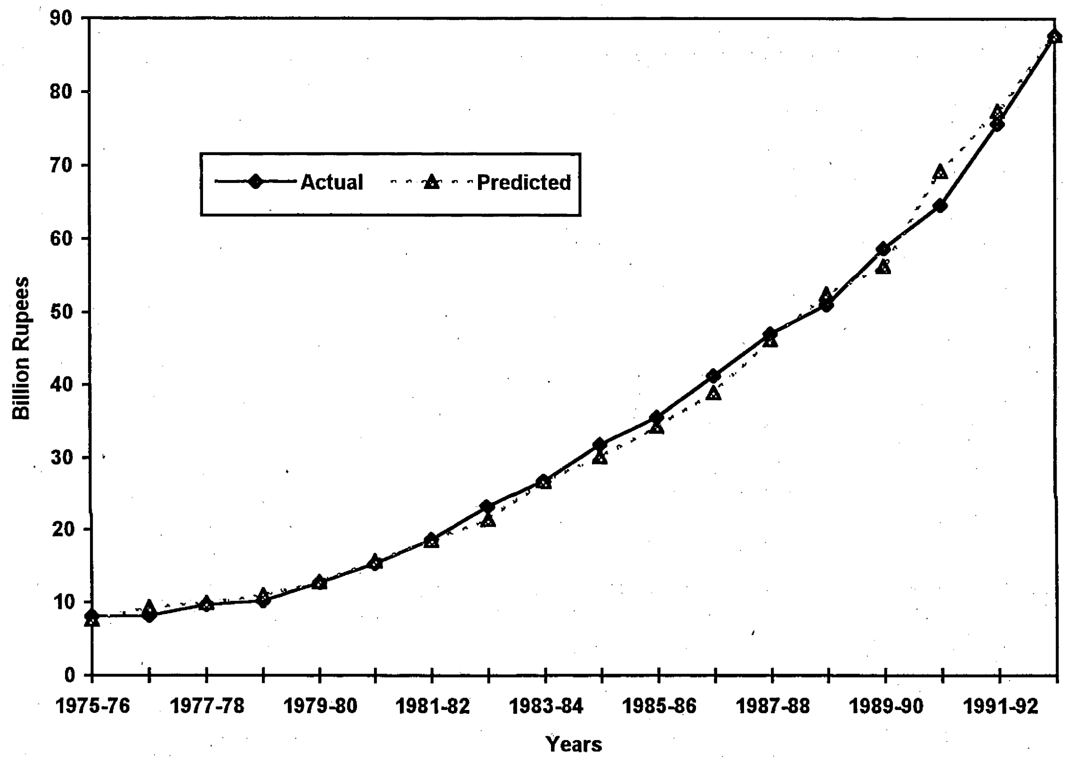
Figure 7.6 **Growth pattern of actual and predicted expenditure on government administration from 1975-76 to 1992-93** (billion Pakistan rupees)



Sources: As per Figure 7.1.

The results of equation (2) indicate that defence expenditure is fully related to the growth of gross domestic product (GDP). The negative sign of the dummy variable, however, indicates that internal socio-political developments have not contributed to the increase in defence expenditure. Figure 7.7 shows a marginal deviation in the predicted and actual series of defence expenditure growth.

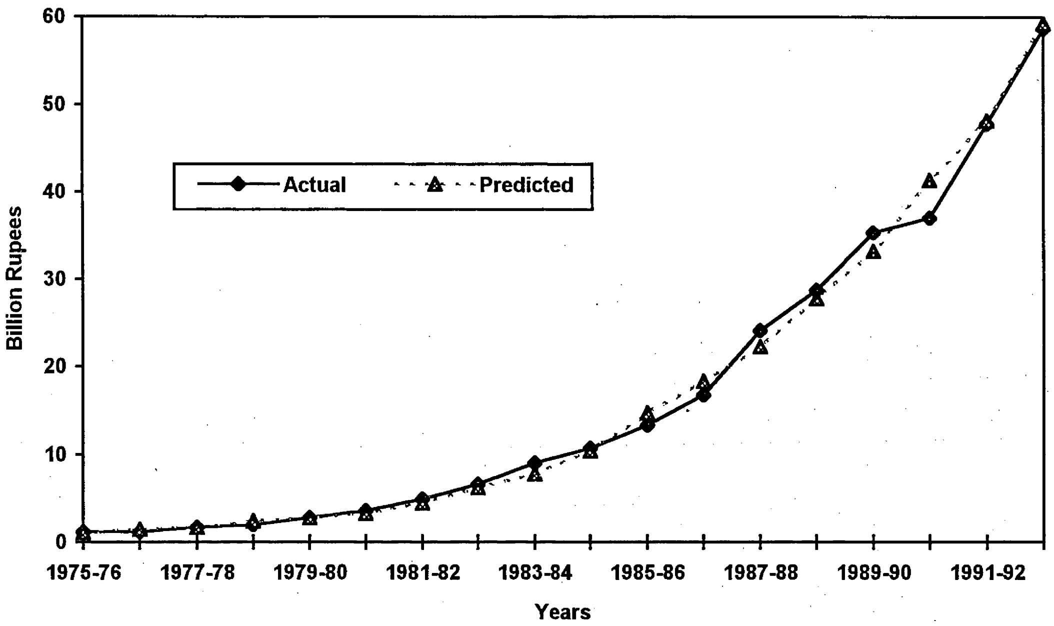
Figure 7.7 **Growth pattern of actual and predicted expenditure on defence from 1975-76 to 1992**-93 (billion Pakistan rupees)



Sources: Government of Pakistan, 1980. *Pakistan Economic Survey 1979-80*, Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and 2.3 and simulation model's predicted values.

The results of equations (4) and (5) on debt servicing liability on domestic and external debt indicate that the accumulation of debt is one of the main causes of pressure on the government budget through increased interest payments. The overall fit of the equations is good. The actual and predicted values move closely during the analysis period (see Figure 7.8 for domestic interest expenditure).

Figure 7.8 **Growth pattern of actual and predicted expenditure on domestic interest payments from 1975-76 to 1992-93** (billion Pakistan rupees)



Sources: Government of Pakistan, 1980. *Pakistan Economic Survey 1979-80,* Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan. Appendix 2.1 and 2.3 and simulation model's predicted values.

Equations (6), (7) and (8) relating to social, economic and community services indicate their positive relationship with the growth of GDP. Equation (10) on capital expenditure, with an elasticity of 0.66, shows that development expenditure growth is not commensurate with the growth of GDP. The insignificant impact of the dummy variable shows that domestic political events and deterioration in the internal law and order situation have an insignificant influence on the growth of development expenditure.

Table 7.2 **Results of regression equations on Pakistan government expenditure**

No. of Equation		$\bar{R}^2$	D.W	F[1]
Expenditure block				
(1)	Expenditure on law and order			
	$Ln\ G_{lo} = -4.92 + 1.16LnY_g + 0.13D_1 + 0.14D_2$ $(-22.245)^{*}\ (29.962)^{*}\ (2.111)^{**}\ (2.071)^{**}$	0.99	2.10	853.873
(2)	Expenditure on defence			
	$Ln\ Def_{exp} = -3.08 + 1.05LY_d - 0.03D_1$ $(-10.205)^{*}\ (21.231)^{*}\ (-0.816)$	0.94	1.80	119.708
(3)	Expenditure on subsidies			
	$Ln\ S_{ub} = -2.90 + 0.70LnY_d + 0.38D_1$ $(-3.482)^{*}\ (4.989)^{*}\ (1.816)$	0.75	1.80	26.293
(4)	Interest on domestic debt			
	$Ln\ Int_{dom} = -4.25 + 1.30Lndom_{debt}$ $(-25.643)^{*}\ (39.490)^{*}$	0.99	1.93	1395.040
(5)	Interest on external debt			
	$Ln\ Int_{ext} = -3.31 + 0.99LnEt_{debt}$ $(-11.259)^{*}\ (18.299)^{*}$	0.95	1.55	210.187
(6)	Expenditure on social services			
	$Ln\ Ser_{soc} = -5.11 + 1.21LnY_d$ $(-19.760)^{*}\ (28.628)^{*}$	0.97	2.00	647.990
(7)	Expenditure on economic services			
	$Ln\ Ser_{eco} = -3.49 + 0.76LnY_d$ $(-5.153)^{*}\ (6.813)^{*}$	0.72	1.83	44.510
(8)	Expenditure on community services			
	$Ln\ Ser_{com} = -6.06 + 1.14LnY_d$ $(-10.452)^{*}\ (12.002)^{*}$	0.85	1.47	95.198
(9)	Other current expenditure			
	$Ln\ Cur_{oexp} = -6.14 + 1.15LnY_g - 0.51D_1$ $(-4.173)^{*}\ (4.568)^{*}\ (-1.308)$	0.60	2.07	13.590
(10)	Capital expenditure			
	$Ln\ Cap_{exp} = -0.51 + 0.66LnY_d + 0.06D_1$ $(-3.036)^{*}\ (22.181)^{*}\ (1.445)$	0.99	1.83	929.187

Notes: -t-statistics are in parentheses. The significance:
*the coefficient is significant at 1% level.
**the coefficient is significant at 5% level.
[1]F-statistic (zero slopes).
Source: Author' computation.

Forecasting government revenue and expenditure

Using the results of regression analysis, Pakistan Government revenue and expenditure are projected for the years 1993-94 to 1997-98 under the *status quo* scenario. Projected government revenue estimates under the assumption of a continuation of past fiscal policies show a gradual decline from 18.2 per cent of GDP in 1992-93 to 18 per cent of GDP in 1997-98 (Table 7.3). A marginal increase, however, is expected in tax revenue because of the increase in direct taxes. Direct taxes are expected to increase from 2.8 per cent of GDP in 1992-93 to 3.1 per cent in 1997-98. Indirect taxes are expected to decline marginally from 10.6 per cent of GDP in 1992-93 to 10.5 per cent in 1997-98. Most of the decline in indirect taxes is in import duties, which are expected to decline from 4.7 per cent of GDP in 1992-93 to 4 per cent in 1997-98 – apparently because of the reduced total imports estimates of the eighth five-year plan (1993-98). Excise duties and sales tax revenue, as a proportion of GDP are expected to remain at the 1992-93 level. The growth of non-tax revenue is found to be consistent with the government policy of exclusion of various public sector autonomous bodies from the budgetary mechanism. The non-tax revenues are expected to reduce to 4.5 per cent of GDP in 1997-98 from 4.8 per cent in 1992-93 (Appendix 7.1).

Projections of Pakistan Government expenditure indicate that current expenditure will continue to increase – from 19.8 per cent of GDP in 1992-93 to 22.1 per cent in 1997-98. The main beneficiaries of this increase will be defence and debt servicing payments. These two expenditures are expected to claim about two-thirds of current expenditure. Defence expenditure is expected to increase from 6.5 per cent of GDP in 1992-93 to 6.9 per cent, whereas debt servicing payments on external and domestic outstanding debts are likely to increase from 5.6 per cent of GDP in 1992-93 to 7.0 per cent. No significant change in current expenditure allocations for social, economic and community services is projected. As a proportion of GDP, these expenditures are expected to remain at approximately the 1992-93 level. However, a moderate increase in government administrative expenditure and expenditure on maintenance of law and order, from 2.3 per cent of GDP in 1992-93 to 2.5 per cent, is expected (Appendix 7.1).

Projections of growth in development expenditure indicate that the continuation of government policy of maintaining fiscal deficits mainly through a significant decrease in public sector development expenditure is likely to result in a substantial decline in development allocations from 6.4 per cent of GDP in 1992-93 to 4 per cent of GDP in 1997-98 (Appendix 7.1). Such a reduction, with all its accompanying social and political ramifications, will seriously undermine "nation building" activities. This situation is clearly not desirable for a developing country such as Pakistan in which millions of people live below the poverty line (UNDP, 1991b:87). It is probably reasonable to assume that in the long term the government would wish to increase development expenditure in line with the growth of nominal income. Capital expenditure, therefore, has been assumed to remain at the 1992-93 level, that is, 6.4 per cent of GDP, for the period 1993-98.

Thus, under the *status quo* scenario, the fiscal gap is expected to widen from 8 per cent of GDP in 1992-93 to 10.4 per cent of GDP in 1997-98 (Table 7.3). Both the primary deficit and the deficit accruing as a result of interest payments liability will increase substantially. The primary deficit is expected to increase from 2.4 per cent of GDP in 1992-93 to 3.4 per cent, whereas the deficit related to interest payments is expected to increase from 5.6 per cent of GDP to 7.0 per cent. Public sector borrowing requirements (PSBR) for financing these deficits, assuming constraints on the availability of domestic bank and external borrowings (chapter 6), will be met from domestic non-bank sources. Non-bank borrowings, therefore, are expected to increase from 1.5 per cent of GDP in 1992-93 to 6.6 per cent of GDP in 1997-98.

Table 7.3 **Projected government revenue, expenditure and deficits under the *status quo* scenario** (as percentage of GDP)

	Actual	Projected				
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Government expenditure	26.2	26.6	27.0	27.5	28.0	28.5
Current expenditure	19.8	20.2	20.6	21.1	21.6	22.1
Development expenditure	6.4	6.4	6.4	6.4	6.4	6.4
Government revenue	18.2	18.2	18.2	18.1	18.0	18.1
Tax revenue	13.4	14.0	13.9	13.8	13.6	13.6
Non-tax revenue	4.8	4.2	4.3	4.3	4.4	4.5
Fiscal deficit	8.0	8.4	8.8	9.3	9.9	10.4
Primary deficit	2.4	2.6	2.8	3.0	3.3	3.4
Interest payments	5.6	5.8	6.0	6.3	6.6	7.0
Financing						
Domestic borrowing	6.2	6.6	7.0	7.5	8.1	8.6
Non-bank borrowing	1.5	4.6	5.0	5.5	6.1	6.6
Bank borrowing	4.7	2.0	2.0	2.0	2.0	2.0
External borrowing	1.8	1.8	1.8	1.8	1.8	1.8
Memorandum items:						
GDP (current billion rupees)	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0

Source: Appendix 7.1.

The above projections suggest that in the absence of major adjustments in its taxation and expenditure policies, the Pakistan Government is expected to face a serious fiscal crisis in the very near future. Budget deficits will be simply unsustainable. Policy measures involving a very substantial program of resource mobilisation and restraint on non-development expenditure, therefore, will be required to avoid fiscal crisis and its adverse impact on the economy. Analysis of possible policy initiatives in Chapter 3 suggests that most of the measures can be expected to have a positive effect on the government's financial position, but will not reduce the fiscal gap to approximately five per cent of GDP (a ceiling considered as prudent by both the Pakistan Government and international financial development agencies). The government needs additional revenue of at least 4-5 per cent of GDP. Apparently, revenue of this magnitude cannot be generated solely from deficit reduction strategies discussed in Chapter 3. The VAT has been tested in a number of countries (Chapter 5) as an independent revenue source. Implementation of a broad-based VAT in Pakistan at 15 per cent (current sales tax rate) could generate resources equal to 4-5 per cent of GDP. The VAT, therefore, may be a useful option worth considering by the Government of Pakistan to overcome its financial crisis. The analysis in the following sections assesses the VAT's revenue potential and its impact on government finances.

Assessment of VAT revenue

As discussed in Chapter 6, VAT revenue is evaluated on the basis of household consumption expenditure under three scenarios: broad-coverage of the VAT; narrow-coverage of the VAT; and a multiple VAT rate system. The advantage of assessing VAT revenue on the basis of household consumption expenditure is that the value of goods and services purchased by consumers automatically incorporates the destination principle of the VAT, since it excludes exports while including imports. Another advantage of using this base in Pakistan is that it automatically exempts public sector consumption, financial services (such as banking and insurance services) and exports. This base also allows for an analysis of the effects of the VAT on different classes of consumers.

Furthermore, because of the complex nature of the exemption system under the VAT arising from policy considerations along with administrative and technical complexities, estimation of VAT revenue under the three scenarios does not take into account exemptions of various commodities of household consumption items, such as health and education services, long-term residential rents, and urban transit: instead, all these items are zero-rated. Although this approach under-estimates revenue from VAT because its effect on intermediate inputs has not been taken into consideration, this approach avoids many complexities associated with the exemption system, especially in developing countries such as Pakistan. The analysis in the ensuing sections, therefore, is based on the combination of the VAT system of zero-VAT rates and a standard rate of 15 per cent for various consumption items (scenario 2) and zero-rates, a low rate of two per cent for necessities, a 15 per cent standard rate and a high VAT rate of 30 per cent (scenario 3). Appendix 7.2 presents the size of the VAT rate structure under the three scenarios.

Scenario 1 – broad-coverage of the VAT

Under this scenario a uniform VAT rate of 15 per cent (current sales tax rate on domestic production and imports) is applied to all the household consumption expenditure items (Appendix 7.3). Projections under this scenario indicate that the VAT will generate substantial revenue. VAT revenue is expected to increase from rupees 122 billion in 1993-94 (from a small sales tax collection of rupees 23.7 billion or 1.8 per cent of GDP in 1992-93) to rupees 198.6 billion in 1997-98. In terms of GDP, VAT revenue would average 7.7 per cent of GDP per annum during 1993-98. Under this scenario, substitution of VAT revenue with sales tax could be expected to reduce the fiscal deficit from eight per cent of GDP in 1992-93 to approximately 1.6 per cent of GDP in 1997-98 (Table 7.4). On primary accounts (revenue *minus* expenditure *less* interest payments), the government will have a surplus equal to approximately three per cent of GDP. Budgetary deficits will accrue because of debt servicing liability which, because of the low public sector borrowing requirements, will also reduce substantially from 5.6 per cent of GDP in 1992-93 to 3.5 per cent of GDP in 1997-98.

Under this scenario, with global coverage and a single rate and with no exemptions, the VAT would be an ideal revenue source for the Government, especially keeping in view the government's weak financial position. However, no country has this kind of VAT system. Socio-political and administrative considerations force modifications, and this is likely to be true in Pakistan. In the majority of countries, the VAT has multiple rates rather than a single rate, and a substantial part of the tax base is either zero-rated or exempt from the tax (Chapter 5). Nevertheless, Table 7.4 below presents the projected results of adopting the VAT at the 15 per cent rate.

Table 7.4 **Government revenue and expenditure under Scenario 1** (as percentage of GDP)

	Actual	Projected				
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Government expenditure	26.2	25.8	25.5	25.3	25.1	24.9
Government revenue	18.2	24.0	23.9	23.8	23.5	23.3
Tax revenue	13.4	19.8	19.7	19.4	19.1	18.8
Value-added tax[1]	1.8	7.9	7.8	7.7	7.7	7.5
Fiscal deficit	8.0	1.8	1.6	1.5	1.5	1.6
Primary deficit	2.4	-3.3	-3.0	-2.7	-2.3	-1.9
Interest payments	5.6	5.0	4.6	4.2	3.8	3.5
Financing:						
Domestic borrowing	6.2	0.2	0.3	0.4	0.4	0.5
External borrowing	1.8	1.6	1.3	1.1	1.1	1.1
Memorandum item:						
GDP (current billion rupees)	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0

Note: [1]1992-93 sales tax on domestic production and imports.
Source: Appendix 7.4.

Scenario 2 – narrow-coverage of the VAT

VAT revenue under scenario 2 is calculated on the basis of zero-rates for various household consumption items, such as cereals, pulses, fruits and vegetables, clothing, second-hand goods, kerosene oil, housing and rent, medical and educational services and public transport (Appendix 7.2). A standard VAT rate of 15 per cent for the remaining household consumption items is applied (Appendix 7.5).

Under this scenario Pakistan Government is expected to collect revenue equal to 4.6 per cent of GDP (1993-98 average). The fiscal deficit is expected to reduce substantially from eight per cent in 1992-93 to an annual average of 5.9 per cent of GDP during 1993-98. Of this, the primary deficit is expected to be approximately one per cent of GDP. Most of the deficit will accrue because of the interest payments liability, which is also expected to reduce from 5.6 per cent of GDP in 1992-93 to 5.3 per cent of GDP in 1997-98. Table 7.5 below gives details.

Table 7.5 **Government revenue and expenditure under Scenario 2** (as percentage of GDP)

	Actual	Projected				
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Government expenditure	26.2	26.2	26.3	26.4	26.6	26.8
Government revenue	18.2	20.9	20.8	20.7	20.5	20.3
Tax revenue	13.4	16.7	16.5	16.3	16.1	15.8
Value-added tax[1]	1.8	4.7	4.7	4.6	4.6	4.5
Fiscal deficit	8.0	5.3	5.5	5.7	6.1	6.5
Primary deficit	2.4	-0.1	0.1	0.4	0.8	1.2
Interest payments	5.6	5.4	5.4	5.3	5.3	5.3
Financing:						
Domestic borrowing	6.2	3.5	3.7	3.9	4.3	4.7
External borrowing	1.8	1.8	1.8	1.8	1.8	1.8
Memorandum item:						
GDP (current billion rupees)	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0

Note: [1]1992-93 sales tax on domestic production and imports.
Source: Appendix 7.6.

Scenario 3 – multiple VAT rate system

Scenario 3 is based on the assumption that a uniform standard rate of 15 per cent on most consumption items will create social and political tension among various income classes, because of a uniform burden on low and high income groups. To avoid political resentment, the majority of countries with VAT have adopted a multiple

VAT rate system (Appendix 4.1). Scenario 3, therefore, is based on the assumption of zero-rating for various goods such as fruits and vegetables, fire-wood, kerosene oil and dung-cakes, housing and rent, medical and educational services and public transport; a low VAT rate of two per cent on many goods presumably consumed in large quantity by low-income households including, cereals, pulses, milk and milk products edible oils, sugar and sugar preparations, and clothing; and a high VAT rate of 30 per cent for items such as soft-drinks, kitchen equipment, china ware, televisions, VCRs, refrigerators, personal transport and jewellery which are assumed to be consumed mostly by the high income groups (Appendix 7.2 and Appendix 7.7).

Under this scenario the VAT is expected to generate revenue equal to 4.7 per cent of GDP (1993-98 average). The implementation of VAT under this scenario will result in a reduction of the fiscal deficit from eight per cent of GDP in 1992-93 to 5.8 per cent of GDP during 1993-98. The primary deficit under this scenario is expected to be approximately one per cent of GDP. Budgetary deficits will occur primarily because of debt servicing liability which is expected to decrease from 5.6 per cent of GDP in 1992-93 to 5.3 per cent of GDP in 1997-98 (Table 7.6).

Table 7.6 **Government revenue and expenditure under Scenario 3** (as percentage of GDP)

	Actual	Projected				
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Government expenditure	26.2	26.2	26.3	26.4	26.5	26.7
Government revenue	18.2	21.0	20.9	20.8	20.5	20.3
Tax revenue	13.4	16.8	16.6	16.4	16.2	15.9
Value-added tax[1]	1.8	4.8	4.8	4.7	4.7	4.5
Fiscal deficit	8.0	5.2	5.4	5.6	6.0	6.4
Primary deficit	2.4	-0.2	0.1	0.4	0.7	1.1
Interest payments	5.6	5.4	5.3	5.3	5.3	5.3
Financing:						
Domestic borrowing	6.2	3.4	3.6	3.8	4.2	4.6
External borrowing	1.8	1.8	1.8	1.8	1.8	1.8
Memorandum item:						
GDP (current billion rupees)	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0

Note: [1]1992-93 sales tax on domestic production and imports.
Source: Appendix 7.8.

Conclusions

Previous research on the VAT's revenue impact on a government's financial position is limited (Smith *et al.* 1973; Crum, 1991). The results of the forecasting analyses carried out here suggest that enactment of VAT could result in substantial improvement in the Pakistan Government's budgetary position. Nevertheless, its impact varies according to the VAT rate structure, zero-rating and exemptions of goods and services.

The empirical analysis suggests that with the continuation of existing fiscal polices, the Pakistan Government will soon face a serious fiscal crisis which will have significant socio-political and economic ramifications. The growing fiscal deficit will not be sustainable in the long-term and the government needs to urgently address the issue. VAT revenue productivity under the three scenarios indicates that the tax will generate substantial revenue to the government, and in a period of five years, the government will be able to substantially reduce its primary fiscal deficits. A reduction in public sector borrowing requirements will also result in a gradual reduction in fiscal deficits related to the debt servicing liability. Furthermore, reduced public sector borrowing requirements will decrease consumption of private savings by the public sector which may have a positive impact on investment and the growth potential of the economy. The analysis also suggests that the implementation of the VAT will permit the government to maintain development expenditure at a moderate level. All these improvements are expected to have a healthy impact on the socio-political and economic development of Pakistan.

8

Distributional Implications of the Value-Added Tax

A tax structure cannot be designed exclusively on the basis of efficiency. Aspects of equity must be considered as well, especially with a tax such as the VAT which is perceived as regressive in its characteristics (Brashares *et al.* 1988:156; Shah and Whalley, 1991:171). In almost all the countries with VAT, measures have been taken to reduce its regressivity, essentially using different methods of zero-rating, exemptions and low rates (Hemming and Kay 1981:82; Pedone, 1981:217; Aaron, 1981:17). The VAT incidence (burden) determines whether the tax is equitable (progressive) or inequitable (regressive), which depends primarily upon the form and the nature of its enactment. For example, incidence of a VAT substituting for one or more other taxes will be different from a VAT implemented as a new tax.

Two standard principles are extensively discussed in the tax incidence literature (Musgrave and Musgrave, 1984:228): the benefit principle, that is, taxpayers pay taxes according to the perceived benefits they receive from the consumption of public goods and services; and the ability-to-pay principle, that is, people pay taxes according to their ability. The benefit principle relates tax burden directly to the expenditure side of the budget (Lambert, 1993:140). This principle, despite its theoretical attraction, has received little support in research work. The problem is that the beneficiaries of public goods and services cannot be induced to reveal their true willingness to pay for the consumption of public goods and services and, therefore, the principle is not comprehensive enough in its application to serve as a general benchmark of equity in the distribution of tax burden (Herber, 1983:125; Musgrave and Musgrave, 1984:228). The majority of studies have investigated tax burden in relation to income (the ability-to-pay).

Studies on VAT incidence have used personal income or consumption as variables for estimating the burden of VAT imposed as an individual tax or as a companion to other taxes. Kaldor (1955) and Davies (1959) have been the leading advocates for using consumption as a tax base. One reason for advocating consumption is that the cost to society and the benefit to the individual is what the latter withdraws from the pool of resources - namely, consumption. A different justification for using consumption as a base derives from Fisherian and Friedmanian views of income. According to them, actual income is liable to change over the life cycle of the earner and is subject to short-term fluctuations. If consumption is a function of permanent or life-time income, it will be relatively free of transitory or cyclical changes in income. According to this line of argument, on a lifetime or permanent income basis, a VAT would be less regressive, and perhaps even proportional, because consumption tends to be a uniform proportion of lifetime or permanent income at all income levels. However, because of perceived difficulties of assessing lifetime income and expenditure the current year's income or expenditure is usually regarded as the most practical basis for the comparison of VAT burden at various income levels (United States Department of the Treasury, 1984:90).

Studies on VAT incidence differ considerably in their conceptual framework, methods used and data sources employed (McLure, 1990:32). As a result, comparison of these studies is difficult. The majority of studies on the incidence of consumption-type VAT has focussed on a particular tax structure already in place

(Schaefer, 1969; Ghazanfar, 1978; Phares, 1973,1980). These studies have found that proportional consumption-type VAT falls more heavily on lower income groups. The study by Pechman and Okner (1974) found that a comprehensive VAT is regressive. Under a comprehensive system, lower income groups would bear a higher proportion of burden than middle and upper-income taxpayers. Brashares *et al.* (1988:172) found that the implementation of VAT would make the tax structure less progressive. A United States Department of the Treasury study found that a consumption type VAT, imposed at a uniform rate, would be regressive and place a significant tax burden on low income groups (1984:89). Tait (1972:85) argues that the substitution of a 15 per cent VAT for existing sales taxes without any adjustment would be regressive. Studies by Heller (1981) on Korea, Mwega (1985) on Kenya and Bovenberg (1987) on Thailand found that consumption-type VATs were regressive. However, the Serra-Puche (1979) study found that VAT in its original form is regressive, but regressiveness of the tax could be reduced, to a certain extent, with exemptions for goods that were weighted heavily in the consumption basket of the poor, plus the use of a higher tax rate on luxury goods. Manasan's (1990) study on Philippines found that VAT coupled with excise taxes on a very limited list of luxury items (automobiles, jewelry, perfumes and yacht) is a slightly less regressive tax.

Some studies have argued that the VAT will not necessarily be regressive in its incidence. Shoup (1969b:300-302), for example, argued that a VAT is likely, but not with certainty, to be regressive. Dresch *et al.* (1977:112) who estimated the distributional effects of a VAT in replacing the corporate income tax, found that VAT substitution would have a marginal effect on income distribution. However Dresch *et al.* model, under the VAT regime, observed redistribution of income from low- to high income households (Dresch, 1977:171). The National Economic Development Office (NEDO) of the United Kingdom 1971 Report found that an adjustment in the VAT rates through zero-rating and exemptions of "necessities" would make the tax substitution less regressive. A Brookings Institutions study on the experience of six Economic Union countries found that it is possible to convert a VAT from a regressive tax to a progressive tax (Aaron, 1981:8). Further, a Garcia-Alba (1982) study on Mexico found that the VAT burden was smaller on goods that were weighted heavily in the consumption basket of poor compared to other cascading effect taxes. The substitution of VAT for turnover taxes improved income distribution (1982:201).

The majority of these studies have assessed the VAT burden on income classes in proportion to their consumption of taxed commodities (Shoven and Whalley, 1984:1015). This process simplified the final settlement of the tax burden. In these studies, a constant value of marginal utility of income has been assumed throughout the allocation process, and is compared with the pre-change level of tax burden for the purpose of evaluating policy alternatives. In addition to this, the average concept has been generally assumed; that is, each member of a specific income class has the same utility (or demand) function.

The aim of this chapter is to examine the distributional implications of a consumption-based VAT which is substituting for a sales tax in Pakistan. The impact on household income and consumption expenditure is analysed under three scenarios. It has been argued that a VAT applied to all consumption goods at a uniform rate would be proportional with respect to consumption, but it would be regressive with respect to income. This is the result of a decreasing incidence of expenditure on food consumption and increasing incidence on non-food consumption as income increases

(Aaron, 1981:17). The chapter, therefore, estimates the impact of VAT both for an income base and a consumption base. It also investigates the extent to which the regressivity of VAT can be reduced to improve its perceived political acceptability, while maintaining a prudent level of VAT revenues. Despite its perceived limitations, the analysis assesses the VAT burden on the basis of current income and household consumption expenditure net of sales tax burden, and no effort is made to assess the VAT burden on the basis of lifetime income and expenditure. The VAT impact on income inequality is assessed separately at national, rural and urban levels. The rural and urban distinction is made because of perceived differences in income and consumption patterns at the two levels.

The VAT burden on the different income groups is estimated pre-VAT and post-VAT. The before-and-after comparison makes it possible to evaluate whether there would be a significant change in tax burden with the introduction of VAT. Since the VAT would likely replace the existing sales tax, an adjustment in VAT revenue estimates has been made to net out the sales tax impact on the different income groups.

A number of caveats should be stated with regard to the VAT incidence analysis in the subsequent sections. First, no effort has been made to incorporate the whole taxation system, nor to incorporate the impact of government expenditure in the analysis - although a VAT implemented for revenue purposes helps governments, especially in developing countries, to reduce fiscal deficits and improve public allocations for social and infrastructure sectors. Under both situations, households are the net beneficiaries. For example, reduced public sector borrowing requirements would reduce the level of deficit financing and thereby the rate of inflation in the economy, while increased allocations for social sectors would improve public transfers. Second, the consumption pattern in 1993-94 has been assumed as fixed on the basis of the 1990-91 Household Integrated Survey. Finally, the assumption of constant utility has many flaws. Differences between rural and urban groups or among income classes, in socio-economic factors such as family structure, income sources, size of income, demand patterns, education, factor mobility and political, cultural and religious influences, inevitably exert an influence on the level of incomes and their dispersion.

Analysis of the distributional implications of the VAT

The simplest and most efficient broad-based VAT imposed at a uniform rate would place a significantly high tax burden on low income households as compared with middle and higher income households (United States Department of the Treasury, 1984:89). Adoption of tax in such a form would be resented by the majority of voters which makes its political acceptability difficult. It is generally believed that the regressivity of the VAT can be reduced by using a combination of zero-rating, exemptions and low rates for products which rank high in the budgets of the lower income households (Nazier, 1989:149). International experience suggests that the majority of countries on VAT have commonly used two methods to reduce regressivity: (i) exempting items of consumption expenditure which have income elasticities of demand below 1.0, such as food, drugs and medicines, shelter, and clothing normally considered to be necessities; and (ii) using lower-than-standard tax rates for goods and services deemed to be necessities combined with higher rates on luxuries (goods with income elasticities of demand above 1.0) (Carlson and Patrick, 1989:344). The analysis of the distributional aspects of VAT in the following paragraphs is based on the following policy alternatives.

(i) Scenario 1 - a uniform VAT rate of 15 per cent for all household consumption expenditure items.

(ii) Scenario 2 - zero-rates for various household consumption items and a standard VAT rate of 15 per cent for the remaining household consumption items.

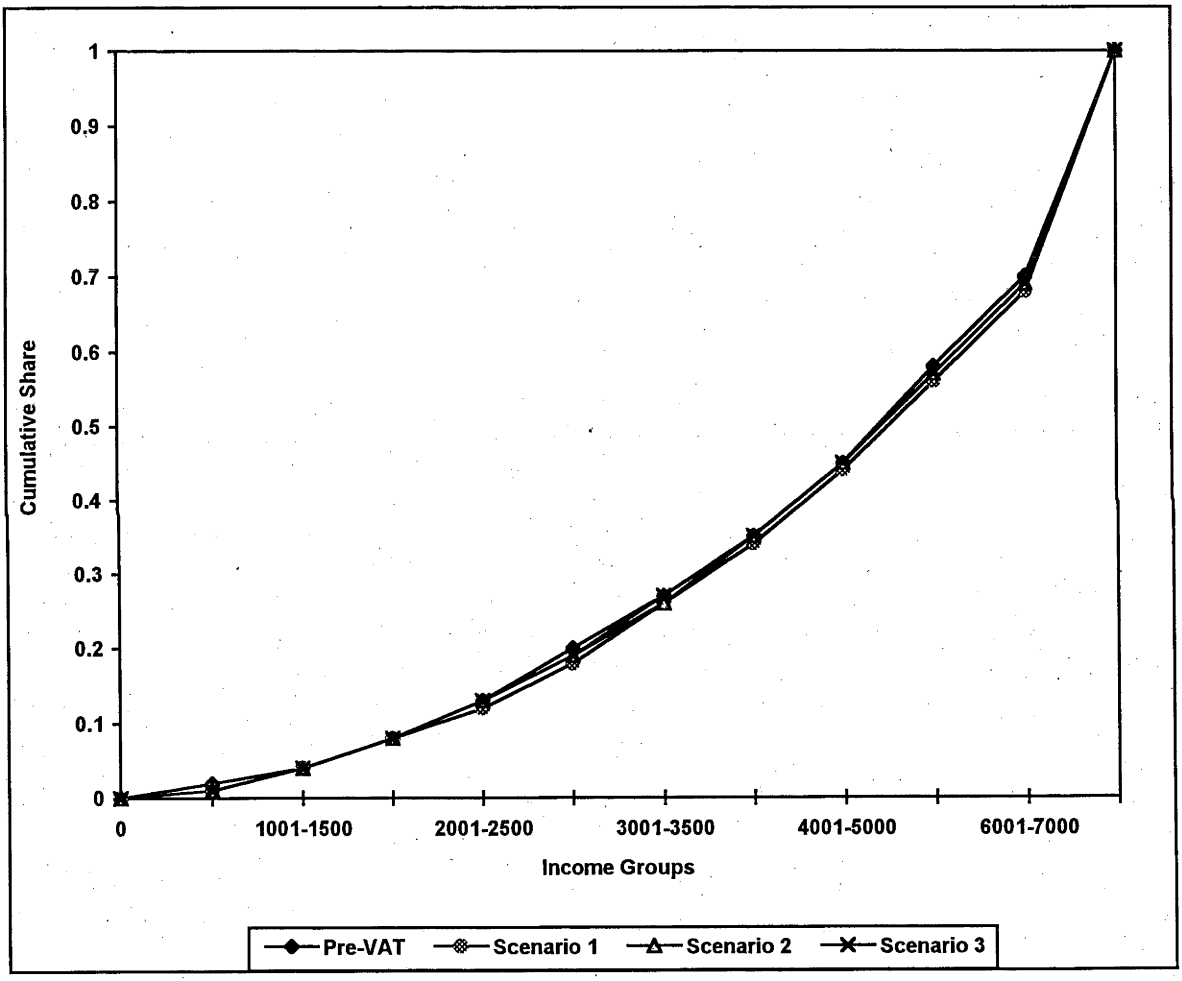
(iii) Scenario 3 - multiple VAT rates: low rates for necessities and high rates for luxuries items.

The distributional impact of the VAT, based on the above scenarios, has been analysed using various methods (discussed in detail in Chapter 6). The Lorenz-curve technique is used to measure income concentration across income groups for pre-VAT and post-VAT levels. The inequality measured nationally and across income groups under the VAT has been investigated by using the Gini-coefficient, computed separately for the income base and the consumption base. The income base has been computed by assuming that household income will be reduced by the amount of VAT passed on by producers and sellers of goods and services to the final consumers in the prices which households pay for goods and services they purchase. The VAT impact has also been evaluated on the basis of household welfare at the national, rural and urban levels.

Measurement of income inequality - Lorenz Curve

The Lorenz-curve (constructed on the basis of table 8.1 below) presents the cumulative share of household income for alternative scenarios under the pre-VAT and post-VAT environment. The Curve shows that under a flat rate VAT system income inequality across households would increase. However, the extent of the increases would have very little effect on the distribution of income. The after tax distribution differed only slightly from the before tax distribution. The changes under scenarios 1, 2 and 3 was so small that the Lorenz curve can not be distinguished on the scale used in figure 8.1. The curve, however, shows that under scenarios 2 and 3, the Lorenz-curve moves backward, but stays above the pre-VAT level. Under scenarios 2 and 3, the VAT burden on all income groups would be identical.

Figure 8.1 **Measurement of income inequality under the VAT using Lorenz Curve analysis, by income groups**



Source: Data source Table 8.1.

Table 8.1 **Cumulative income concentration under alternative VAT systems** (proportions)

Income groups	Pre-VAT	Scenario 1	Scenario 2	Scenario 3
Up to 1000	0.02	0.01	0.01	0.01
1001-1500	0.04	0.04	0.04	0.04
1501-2000	0.08	0.08	0.08	0.08
2001-2500	0.13	0.12	0.13	0.13
2501-3000	0.20	0.18	0.19	0.19
3001-3500	0.27	0.26	0.26	0.27
3501-4000	0.35	0.34	0.35	0.35
4001-5000	0.45	0.44	0.45	0.45
5001-6000	0.58	0.56	0.57	0.57
6001-7000	0.70	0.68	0.69	0.69
> 7000	1.00	1.00	1.00	1.00

Source: Appendix 8.1.

Gini Coefficient measurement of income inequality – income base

A consumption-type VAT imposed at a uniform rate would be regressive and place a significant tax burden on low income households. Table 8.2 shows that the income inequality under a uniform VAT rate system at the national level would increase from 0.4011 to 0.4977 (scenario 1). These results are consistent with the United States Department of the Treasury study (1984) and the Brashares *et al.* (1988) study results. Both studies found that a consumption-type VAT, extended through the retail level and imposed at a uniform rate, would be regressive.. Table 8.2 shows that a change in the VAT rate structure allowing zero-rating and low rates for necessities (scenario 2) would mean a lesser increase in inequality. The Gini-coefficient would reduce from 0.4977 to 0.4546. A multiple VAT rate system with zero-rating for various necessities (scenario 3) would give approximately the same results for scenario 2 at the national level.

The Gini-coefficients calculated for rural and urban areas indicate that VAT would also increase income inequality in these areas. Table 8.2 shows that income inequality would be higher under a uniform VAT rate system. However, compared to scenario 1 income inequality would be less under scenario 2 and scenario 3. In the aggregate, under the three scenarios, the implementation of VAT would result in an increase in income inequality from the pre-VAT level, but its impact would be highest on urban households.

Table 8.2 **Impact of value-added tax on household income under alternative scenarios**

Case	Income base	Gini coefficient		
		National	Urban	Rural
Case 1	Pre-value-added stage	0.4011	0.4021	0.4159
Case 2	With a 15 per cent flat value-added tax[1]	0.4977	0.5153	0.5132
Case 3	With zero-rate for necessities and 15 per cent standard rate[2]	0.4546	0.4659	0.4760
Case 4	With multiple value-added tax rates[3]	0.4548	0.4642	0.4749

Notes: [1]Scenario 1.
[2]Scenario 2.
[3]Scenario 3.

Source: Author's computation.

Gini Coefficient - measurement of income inequality – consumption base

The Gini-coefficients measured on the basis of household consumption expenditure also show that inequality would increase under the three VAT scenarios. At the national level, inequality will increase from 0.2965 in the pre-VAT situation to 0.4018 under scenario 1 (Table 8.3).

The consumption base measure on income inequality indicates that the impact of the VAT on rural groups is more regressive than shown by the income measure. In the urban areas, under scenario 1, the Gini-coefficient would increase from 0.3208 to 0.4225, whereas in rural areas the Gini-coefficient would increase from 0.2903 to 0.3966 (Table 8.3).

Table 8.3 **Impact of value-added tax on household consumption expenditure under alternative scenarios**

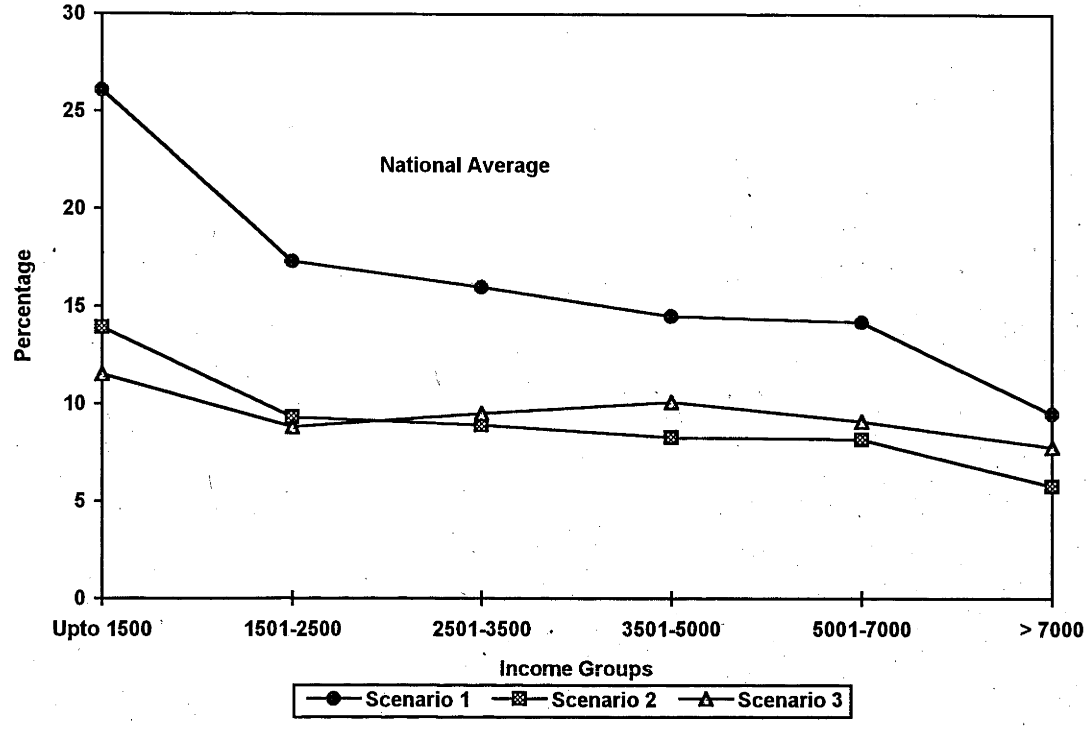
Case	Consumption base	Gini-coefficient		
		National	Urban	Rural
Case 1	Pre-value-added stage	0.2965	0.3208	0.2903
Case 2	With a 15 per cent flat value-added tax	0.4018	0.4225	0.3966
Case 3	With zero-rate for necessities and 15 per cent standard rate	0.3548	0.3779	0.3779
Case 4	With multiple value-added tax rates	0.3536	0.3765	0.3547

Source: Author's computation.

Distribution of VAT burden on households – income base

The absolute VAT burden on households by income class has been measured at the national, rural and urban levels. For national income averages, Figure 8.2 below shows that a flat rate VAT would be highly regressive. Under scenario 1, the VAT impact would be highly skewed towards the lower income groups whose monthly income is up to rupees 1500. This income group would incur a VAT burden of approximately 26 per cent, compared with approximately 10 per cent by the high income group (income above rupees 7000 per month). However, the VAT burden on low income households would reduce under scenarios 2 and 3 from 26 per cent to 13.9 per cent and 11.5 per cent respectively.

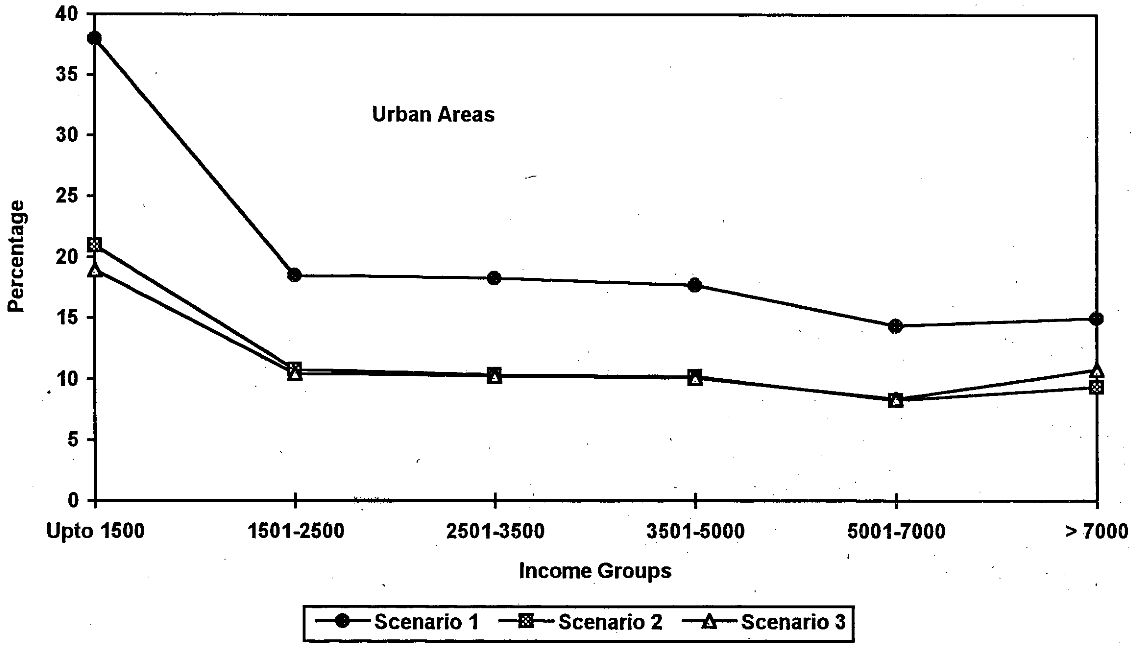
Figure 8.2 **National average: value-added tax burden on households by income classes**



Source: Appendix 8.1.

As shown in Figure 8.3, the impact of a flat rate VAT on urban households would also be highly regressive. The tax impact on lower income households would be 38 per cent compared with 15 per cent on the highest income group. Under scenarios 2 and 3 the regressiveness is greatly reduced, especially under scenario 3. Figure 8.3 also shows that under scenarios 2 and 3 the VAT burden on middle income households would be identical.

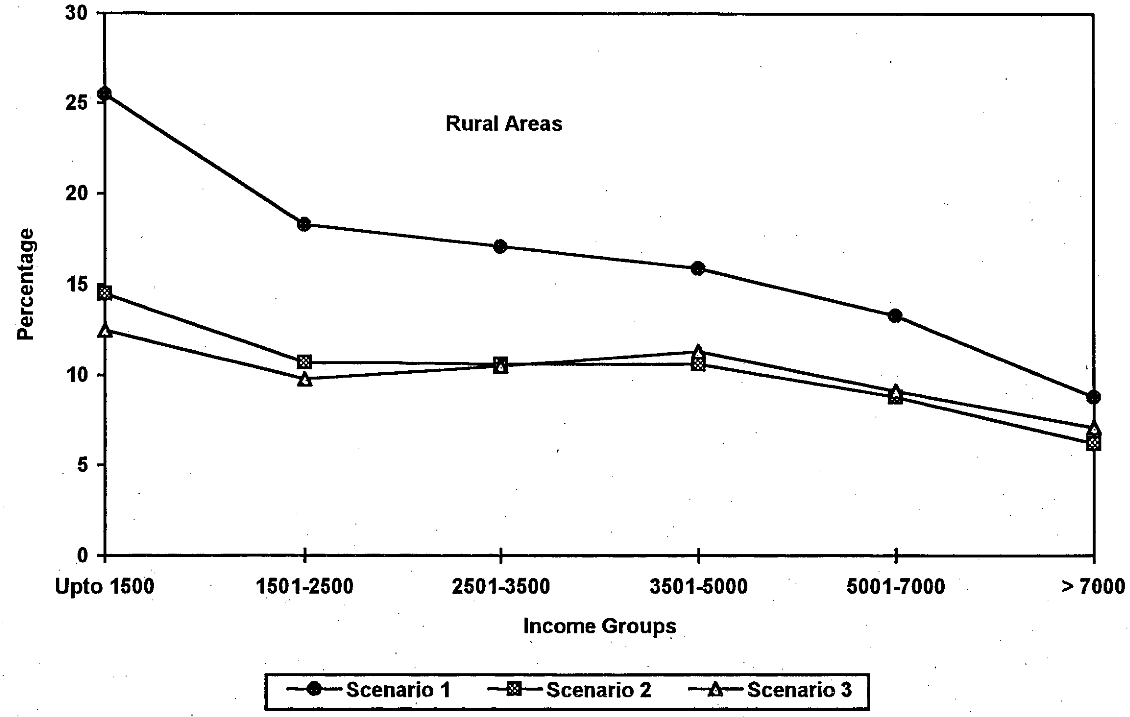
Figure 8.3 **Urban areas: value-added tax burden on households by income classes**



Source: Appendix 8.1.

As shown in Figure 8.4, the VAT burden on low income rural households, *vis-a-vis* high income rural households, would be high. The regressivity of the VAT burden would be greatly reduced under scenarios 2 and 3 as would the extent of the tax burden on all households.

Figure 8.4 **Rural areas: value-added tax burden on households by income classes**



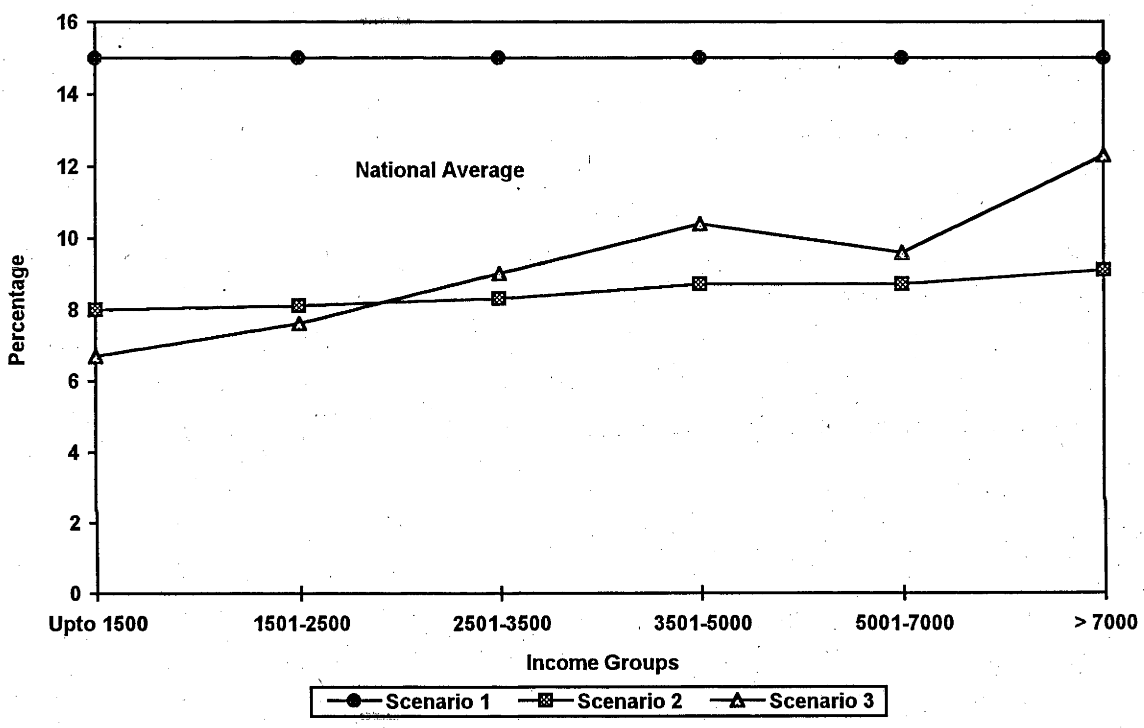
Source: Appendix 8.1.

The VAT is clearly regressive under all scenarios. However, zero-rating and lower rates for most necessities of the low income households and high rates for most luxury items significantly mitigate the regressivity of the tax. Still, in the absence of compensation through public sector transfers, the low income households would be worse off, especially the urban households. The VAT schemes defined in scenarios 2 and 3 substantially lower the tax burden on all taxpayers as compared to the flat tax regime.

Distribution of VAT burden on households – consumption base

The VAT burden on various income groups has been calculated as a ratio of VAT liability to household consumption expenditure for the three scenarios presented. Figures 8.5, 8.6 and 8.7 show that a flat rate VAT on household consumption expenditure, without exemptions, would have a proportional burden on all income groups. Relaxing the flat rate by allowing zero-rating for necessities (scenario 2), the VAT burden would gradually increase at higher income levels. The effective VAT rates would be even more progressive under scenario 3 (Figure 8.5). Under this scenario, the low income households would bear 6.7 per cent of the VAT rate burden, *vis-a-vis* 12.3 per cent for higher income households (above rupees 7000).

Figure 8.5 **National average: value-added tax burden on households by income classes**

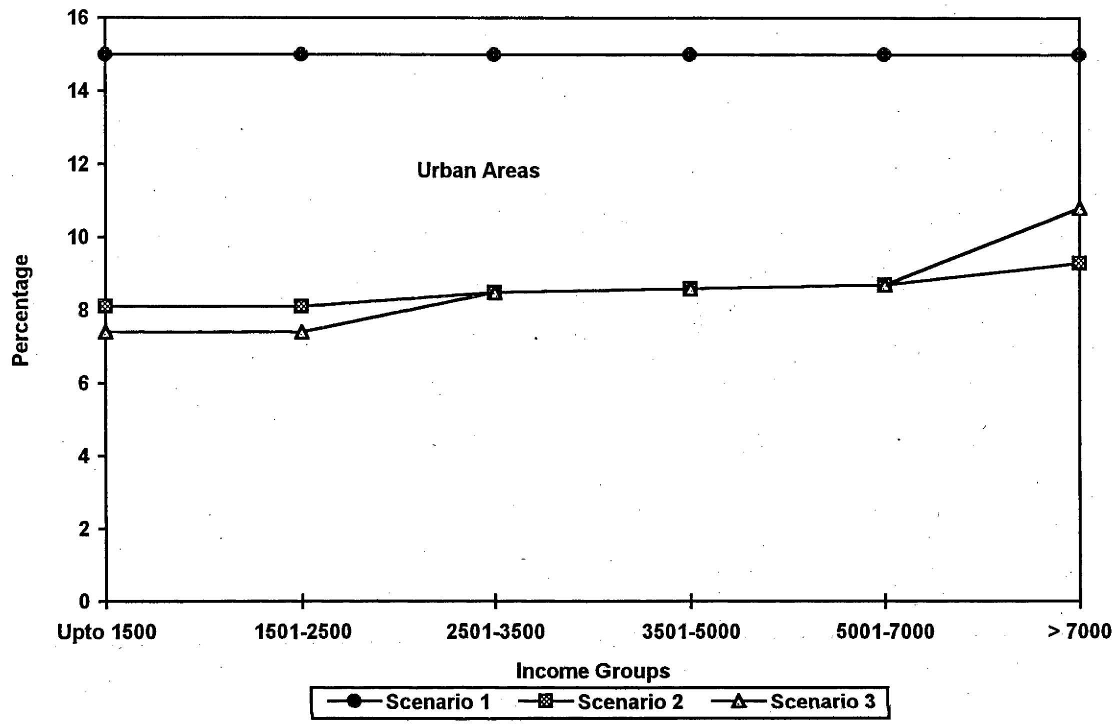


Source: Appendix 8.1.

Figure 8.6 below indicates that under scenario 2 the low income urban groups would have an approximate eight per cent tax burden, whereas the VAT burden on high income urban households would be approximately nine per cent. Under scenario 3, the effective VAT rate increases for high income groups. The low income groups would have a 7.4 per cent VAT burden, whereas the high income groups would have a tax burden of approximately 11 per cent (Figure 8.5). Under scenarios 2 and 3, the

VAT burden on middle level income groups (rupees 2501 to rupees 7000) would be almost identical.

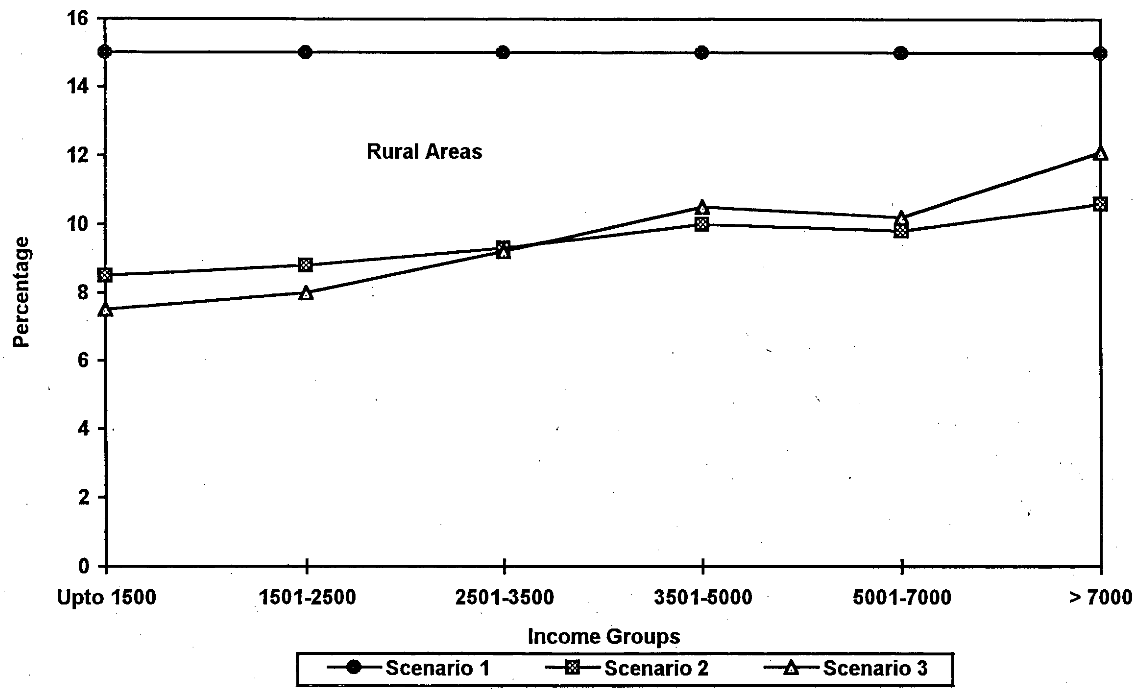
Figure 8.6 **Urban areas: value-added tax burden on households by income classes**



Source: Appendix 8.1.

The VAT burden on rural household consumption expenditure under scenarios 2 and 3 would be higher with higher incomes. However, under scenario 3, the VAT burden on low income rural households at 7.5 per cent would be substantially below that of higher income households.

Figure 8.7 **Rural areas: value-added tax burden on households by income classes**



Source: Appendix 8.1.

VAT impact on household welfare

Household welfare under the VAT system is measured through the use of the welfare index presented in Table 8.4. The table shows that with the implementation of VAT, rural and urban households would be worse off. At the national level, the loss of welfare would be higher under scenario 1. The welfare index under scenario 1 would reduce from 1.00 in the pre-VAT situation to 0.662. Under scenarios 2 and 3 the relative household welfare position would improve, but would remain below the pre-VAT position. On welfare grounds, scenario 2 is preferable as it implies less welfare loss.

In both rural and urban areas there would be a welfare loss under scenario 1. Households in both sectors would be better off under scenarios 2 and 3 relative to scenario 1, but their welfare position would remain below the pre-VAT level (Table 8.4).

Table 8.4 **Impact of value-added tax on households' welfare under alternative scenarios**

Case	Income base	Welfare index[1]		
		National	Urban	Rural
Case 1	Pre-value-added stage	1.000	1.000	1.000
Case 2	With a 15 per cent flat value-added tax	0.662	0.632	0.651
Case 3	With zero-rate for necessities and 15 per cent standard rate	0.772	0.752	0.749
Case 4	With multiple value-added tax rates	0.766	0.754	0.751

Note: [1]Computed on the basis of per capita post-VAT average income *times* (1-Gini).
Source: Author's computation.

Conclusions

Because of its perceived regressive nature, the VAT has been criticised as not equitable to low income groups. For this reason almost all countries with VAT have designed their system to protect lower income groups from the VAT burden.

The distributional impact of VAT evaluated through the Lorenz-curve, Gini-coefficients, and a welfare index it was found that VAT substitution for a sales tax would be regressive with respect to income in Pakistan. Without an adjustment in their income, the VAT would cause low income individuals and families to incur substantial tax liability. This aspect will likely limit its political acceptability. The analysis shows that a flat rate VAT system would be more regressive than a multiple rate VAT system. The welfare index shows that under the VAT system, households at the national, rural and urban levels would be worse off compared with their pre-VAT position. However, VAT impact on income distribution under the three scenarios, *vis-a-vis* as measured through Lorenz-curve analysis, has been found to be insignificant.

Cross-national and cross-income group analysis has focused entirely upon the equity aspects of VAT with the principle objective being to rearrange the tax burdens among households so that a more "equitable" distribution of the VAT burden is achieved. The results of this chapter, however, should be interpreted with important qualifications as they are based exclusively on the VAT impact. Other important aspects such as increased public expenditure deriving from the VAT system on education and health, general public services, housing and other community amenities, and public sector transfers have not been incorporated in the analysis.

9

Taxpayer Compliance and Administrative Feasibility of the Value–Added Tax

Studies undertaken by Groves (1958), Allingham and Sandmo (1972), Srinivisan (1973), Yitzhaki (1974), David (1981), Clotfelter (1983), Cox (1984), Slemrod (1985) and Reinganum and Wilde (1985) have analysed variables that influence tax compliance, including age, sex, educational background, income level, occupation, fairness of the tax system, political environment, cultural and religious influence. The outcome of these studies has been contradictory. In Pakistan, many social and psychological factors have contributed to low tax compliance. One major factor is taxpayers' belief that the tax system is unfair, that is., taxpayers feel that they pay more tax than others or receive inadequate government goods and services for the value of tax they pay. Other factors which have contributed to low compliance are:

(i) Defiance and violation of laws: these were among the major means employed in the struggle for independence from the colonial administration. The psychological environment has not undergone a significant change, and citizens continue to perceive manifestations of virtually the same class difference between the ruler and the ruled as in the colonial days (Zaman, 1989:8);

(ii) The Islamisation of the economy has influenced tax paying attitudes. Those who pay Zakat (an Islamic tax, compulsory after certain wealth) feel no obligation to pay any other tax to the government; and

(iii) The tax system is unable to distinguish or unwilling between the honest and the dishonest. Those taxpayers who attempt to pay honestly are invariably treated as dishonest by the tax functionaries (NTRC, 1986:107). Taxpayers often find themselves harassed and humiliated and subjected to taxes higher than those due, while a tax evader who is willing and has the financial resources to distribute to the tax functionaries, often has a much lower tax burden imposed. This treatment discourages honesty (NTRC, 1986:99).

A field survey was undertaken in January–April 1994 (see chapter 6) to assess responses of various social groups to the taxation structure and major taxes, especially the introduction of the VAT, and the influence of the socio-political and administrative infrastructure on domestic resource mobilisation efforts. In-depth interviews with legislators, politicians, senior policy-makers, representatives of the Chamber of Commerce and Industries, industrialists, business persons, politicians and the general public were conducted to solicit their views on the above issues. Despite its limited coverage, the field survey provided valuable information on the administrative strengths and structural weaknesses of the implementation of the VAT.

The field survey benefited from discussions with eight focus groups – two groups of business community representatives, three groups of grass-roots politicians and three groups of members of the general public. On average each group consisted of six to eight persons. The focus group discussions provided a device for obtaining in-depth information on a specific topic. The advantage of focus group discussions is that individuals who share common experiences and problems are willing to discuss their interests in a group atmosphere (Kumar, 1987:12-14; Knodel, 1988:47). The informal group situation encourages participants to give opinions freely which might not be possible in formalised individual interviews. The topics in the focus group discussions and the in-depth interviews are normally similar, but a major difference between the focus groups and the in-depth interview is that, in the focus group, an attempt is made to develop a form of group dynamics, whereas the in-depth interview attempts to acquire more personal interpretations of the topics under discussion. These two techniques were together provide in-depth responses to the issues under discussion.

The respondents were asked to reply to a series of closed and open-ended questions relating to the weaknesses of the taxation system, and to give their views as to how to overcome the current fiscal crisis. The conventional approach to measuring public opinion on tax and spending issues has been followed. The respondents of the field survey were asked whether they are paying too much, the right amount or too little in taxes, and whether they favour either an increase or decrease in government expenditure. In order to assess their perceptions about a VAT system, the respondents were asked to give their opinion on the feasibility of the introduction of VAT in Pakistan. The same topics were pursued in every interview, but the precise wording of the questions, and the order in which they were considered, varied from one interview to the next on the basis of the characteristics of the respondents. The length of interview varied from 45 minutes to two hours. The average interview was one hour 15 minutes.

Because of the diverse nature of each group, the survey data analysis has been divided into five separate sections. The focus groups' discussions have not been analysed separately, but the individual interview responses have been matched with the focus group discussions on identical questions.

Policy–makers

This section presents an analysis of the responses gathered in a series of 26 interviews with individuals associated with fiscal policy design and implementation. Respondents interviewed were senior bureaucrats, legislators and executives of various economic ministries and departments in the federal and the provincial governments. All the respondents were well-educated. Their average age was approximately 55 years.

On the question of the causes of the narrow tax base, the majority of the respondents (92 per cent) indicated that many socio-political and economic factors impeded the growth of major taxes (Table 9.1). Respondents indicated that certain constitutional and statutory requirements limited the government's ability to expand the tax base. Political influence has derailed efforts made to enlarge the tax base. The federal and provincial legislative assemblies, historically regulated by the "Landed Aristocracy", have domination over the social, economic, political and religious life of the people. Any proposal to tax property or agricultural incomes for example, threatens the vested interests of this pressure group.

The pressure of interest groups not only weakens the domestic resource base, but also poses many questions for taxpayers who feel that the country's taxation system is not just. In the last few years, uncertainty, associated with a weak political climate has put further pressure on public resources through increased public expectations for certain facilities and services, while private investment in non-commercial activities has remained limited. All these factors have adversely affected improvement in the domestic resource base.

On the question of taxation procedures and laws, 77 per cent of respondents indicated that complicated tax laws and procedures impeded the smooth implementation of various tax policies. The excessive discretionary power of tax officials and ambiguous language of tax laws has weakened resource mobilisation efforts. Also, increased smuggling and lack of coordination between tax departments, tax officials and taxpayers have weakened the taxation system (Table 9.1).

Table 9.1 **Percentage distribution of policy–makers' responses: by suggested causes of weakness of the tax structure**

	Agree	Not agree	Neither agree nor disagree
1. Narrow tax base	92	-	8
2. Complicated tax laws and procedures	77	15	8
3. Excessive discretionary tax officers' power	73	-	27
4. Political and social impediments	69	19	12
5. Weaknesses of the tax agency	35	46	19
6. Other weaknesses (training, tax officers' education, smuggling, bureaucratic controls)	69	-	31

Note: Respondents were 26 policy-makers associated with the federal and the provincial governments, researchers and academics.
Source: Based on data collected during the field survey.

The respondents were asked to rank their choice of major taxes in order of preference. Seventy-three per cent of those who responded favoured the introduction of a European Union type broad-based consumption tax (VAT), while 27 per cent of the respondents opposed the introduction of such a tax on grounds of equity and administrative complications. The main reason for their opposition was that in a cash economy with a large non-monetised sector, implementation difficulties of the VAT would outweigh its benefits. In their opinion, VAT successes, mostly in OECD countries would be difficult to replicate in Pakistan, because of weak administrative infrastructure and lack of general education on taxation issues. Nineteen per cent indicated their preference for taxes on income. However, views were divided on the taxation of agricultural incomes. Excessive reliance on import duties was rejected by the majority of respondents on the grounds of its potentially deleterious effects on the country's competitive position and the likely increase in smuggling in Pakistan (Table 9.2).

Table 9.2 **Percentage distribution of policy–makers' responses: by type of tax preference**

Type of tax	Tax preference (%)
1. Taxes on income	19
2. Customs duties	4
3 Excise duties	4
4. Value-added tax	73

Source: Based on data collected during the field survey.

Approximately three-quarters (73 per cent) of the policy makers favoured a uniform VAT rate, while eight per cent favoured a multiple rate structure – lower rates for necessities and higher rates for luxury items. Nineteen per cent of those who responded to the question presented views which are best be described as 'mixed' – favouring efficiency and at the same time protecting lower income groups.

Respondents were asked to give their opinion on a 15 per cent VAT rate. Thirty-nine per cent of respondents thought that a 15 per cent rate was high, 46 per cent supported the rate, while 15 per cent considered it low (Table 9.3).

Table 9.3 **Distribution of policy–makers' responses: by opinion on a 15% VAT rate**

Opinion	Responses (%)
Low	15
Right	46
High	39

Source: Based on data collected during the field survey.

On the question of the organisational structure of VAT, 58 per cent of the respondents thought that departments presently administering sales tax should implement the VAT. Twenty-three per cent indicated that an independent administrative body was likely to be more efficient, while 19 per cent 'neither agreed nor disagreed' or thought it was not relevant. Approximately 89 per cent favoured a separate VAT training centre (Table 9.4).

Table 9.4 **Percentage distribution of policy–makers' responses: by type of opinion on VAT organisational structure**

	Agree (%)	Not agree (%)	Neither agree nor disagree (%)
1. Need to establish a separate VAT Division	23	58	19
2. Present departments implement VAT	58	23	19
3. Separate sections for VAT law, rules, and regulations	81	-	19
4. Need for a separate VAT training centre	89	-	11

Source: Based on data collected during the field survey.

Respondents were asked to give their opinion on staff requirements for the implementation of the VAT. Fifty-four per cent indicated that VAT success would be largely dependent on the qualified staff trained in VAT administration, while 38 per cent did not see any problem with staffing. Eighty-eight per cent indicated the need for additional staff for VAT implementation, while 46 per cent indicated that the additional staff needs would be met through transfers from other tax departments and government organisations (Table 9.5).

Table 9.5 **Percentage distribution of policy–makers' response: by type of VAT staff requirements and structure of incentives**

Problem and extent	Agree (%)	Not agree (%)	Neither agree nor disagree (%)
1. Staff requirements for VAT implementation			
a) Qualified staff	54	38	8
b) Additional staff	88	8	4
c) Staff transfer from other tax departments	46	54	-
2. Pay scale and incentive structure			
a) Higher pay scale for VAT personnel	73	27	-
b) System of incentives and rewards	88	-	12
c) Regular on-the-job training	92	-	8

Source: Based on data collected during the field survey.

On the question of higher pay scale and incentive structure, about 80 per cent indicated that since the scope of the VAT would be much larger and its implementation would require substantial efforts on the part of tax administrators, the existing pay-scales would not provide sufficient stimulus for them to work hard or devote themselves to the success of a new tax. Higher pay and a system of cash awards and appreciation for outstanding performance, on the other hand, would encourage staff and attract qualified and committed workers to the VAT department. Twenty-seven per cent of the respondents opposed the idea of a different pay structure for VAT staff. In their opinion, higher pay for a particular tax department would likely lead to a deterioration in the performance of other departments and would lead to overall inefficiency (Table 9.5). However, respondents strongly supported regular on-the-job training for VAT officials. Ninety-two per cent of the respondents viewed regular training of tax officials as vital for the success of the VAT system.

In response to open-ended questions for suggestions on how to improve the tax administration, the majority of respondents were of the opinion that development of the tax administrative infrastructure was as important as developing any other infrastructure. In their opinion, efforts were required to simplify tax laws, reduce the discretionary power of the tax officials, and introduce a system of accountability leading to severe punishment for corrupt officials. Mass education of taxpayers and tax officials was considered by the respondents as an important element for the improvement of the tax environment in the country (Table 9.6).

Table 9.6 **Percentage distribution of policy–makers' responses: by type of suggestion for improvement in the tax administration**

	Agree (%)	Not agree (%)	Neither agree nor disagree (%)
1. Control corruption	96	-	4
2. Simplify tax laws	100	-	-
3. Broaden tax base	96	-	4
4. Mass education for tax personnel	81	-	19

Source: Based on data collected during the field survey.

Field–level tax administration

The role of field-level organisations has traditionally been perceived as important for the success of the implementation of tax polices. Since VAT implementation requires a considerably higher rate of participation, its success or failure also depends on the competency of the field-level organisations, among other factors. The survey interviewed tax administrators at the field-level with a view to assessing staff awareness of the VAT system and identifying structural bottlenecks which might hamper smooth implementation of the VAT. A range of questions were asked to ascertain information on staff working conditions, incentives for excellence, the system of career development and the relationship between supervisors and subordinate staff.

The field-level respondents were field tax office supervisors (cadre officers selected through competitive examinations) and subordinate staff – superintendents, deputy superintendents and tax inspectors. Both groups have different career and incentive structures. The supervisors were in the age group of 30-40 years with a university degree, whereas the subordinate staff were, on average, between 40-50 years of age and the majority had college-level education. Both groups were asked the same questions. Replies were largely consistent across province and cadre.

Structure of rewards and incentives

Recognition of outstanding performance has been a fundamental means of conveying appreciation for past actions, support for continued efforts and encouragement. Salary incentives, promotion, a range of monetary and non-monetary rewards attracts and retains staff with appropriate skills and abilities, and provides inducement for satisfactory service and high achievement (OECD, 1988:12; PSC, 1992:65; JCPA, 1992:S-667). The staff members were asked questions on the use of their skills. Sixty-four per cent of those who responded indicated that their responsibilities allow them to make a good use of their skills and abilities. Eighteen per cent strongly agreed. However, 25 per cent of the respondents neither agreed nor disagreed, and 11 per cent disagreed. Of the 13 supervisors interviewed, 77 per cent strongly agreed or agreed that good use was made of their abilities, whereas 53 per cent of the subordinate staff strongly agreed or agreed that their jobs made good use of their skills (Table 9.7).

Table 9.7 **Distribution of field–level respondents: by type of staff believing their jobs make good use of their skills and abilities**

	Number of respondents	Strongly agree (%)	Agree (%)	Neither agree nor disagree (%)	Disagree (%)
Overall	28	18	46	25	11
Supervisors	13	23	54	15	8
Subordinate staff	15	13	40	30	17

Source: Based on data collected during the field survey.

Staff members were asked questions on job satisfaction. Of the total respondents, 32 per cent indicated that they were very satisfied or satisfied. Twenty-five per cent who responded were neither satisfied nor dissatisfied, and the majority (43 per cent) was dissatisfied. The supervisory staff in 62 per cent of cases indicated that they were very satisfied or satisfied, however, 30 per cent were neither satisfied nor dissatisfied. The level of job satisfaction among the subordinate staff was fairly low. Approximately three-fourth who responded indicated that they were dissatisfied. Only seven per cent indicated that they were satisfied (Table 9.8).

Table 9.8 **Distribution of field–level respondents: by staff rating by satisfaction of job**

	Number of respondents	Very satisfied (%)	Satisfied (%)	Neither satisfied nor dissatisfied (%)	Dissatisfied (%)
Overall	28	11	21	25	43
Supervisors	13	22	40	30	8
Subordinate staff	15	-	7	20	73

Source: Based on data collected during the field survey.

On the question of promotion, 46 per cent of the field-level respondents indicated that they had received promotion to the next higher grade. Of these, 92 per cent were supervisors, while only eight per cent were from the subordinate staff (Table 9.9). The majority of the subordinate staff indicated that the system of reward and incentives worked in favour of the few and encouraged patronage or favouritism. For example, cadre officers (supervisors) during their service career receive three to four promotions, whereas during their service career the subordinate staff receive one or two promotions.

Table 9.9 **Percentage distribution[1] of field–level respondents: by type of work incentive**

	Overall (%)	Supervisors (%)	Subordinate staff (%)
1. Training			
- On the job training	54	53	47
- Professional training	54	67	33
- Educational training	14	100	-
2. Work incentive			
- Promotion	46	92	8
- Cash award	43	83	17

Note: [1]Percentage of 28 respondents who replied 'yes' to the questions.
Source: Based on data collected during the field survey.

Staff response on preferences for rewards for doing an out-standing job varied significantly by classification. The most popular selection was personal recognition from senior management (36 per cent). This was closely followed by more career development options (29 per cent). Twenty-five per cent who responded identified tangible benefits (financial benefits or cash payments) and a further 14 per cent identified greater job responsibility (Table 9.10). Responses from the two groups of staff varied considerably. The supervisory staff were more in favour of personal recognition (38 per cent), whereas subordinate staff (40 per cent) were in favour of more career options (Table 9.10).

Table 9.10 **Distribution of field level respondents: by staff rating for doing an outstanding job**

	Number of respondents	Personal recognition (%)	Greater job responsibilities (%)	More career options (%)	Tangible rewards (%)
Overall	28	36	14	29	21
Supervisors	13	38	23	31	8
Subordinate staff	15	13	27	40	20

Source: Based on data collected during the field survey.

Structure of training

Training encompasses a wide array of individual, group and team-based schemes designed to improve the competence and skills of staff and thereby organisational effectiveness. It serves a number of important functions including as a mechanism for management improvement. The field-level respondents were asked questions about the extent of training they receive in their service career, their impression of it and the impact of training in their career development. Responses to each question varied significantly by staff classification. Of the total respondents, 54 per cent indicated that they have received on-the-job training. Of these, 53 per cent were from the supervisory cadre and 47 per cent from subordinate staff. Nearly one-quarter (23 per cent) of all subordinate staff indicated that they have received only four to five weeks' formal training, while one in five indicated that they have received between seven to eight weeks' professional training. The educational training to improve qualifications was taken up by the supervisory staff in all cases (see Table 9.9 above).

The field-level respondents rated training as a significant factor which could improve the quality of their work. Of the 13 supervisors who responded to the question, 69 per cent indicated that they considered training an important part of their career development. Approximately three-quarters (73 per cent) of the subordinate staff believed that training would improve their skills (Table 9.11).

Table 9.11 **Distribution of field–level respondents: by staff believing that training helps in the improvement of overall efficiency**

	Number of respondents	Strongly agree (%)	Agree (%)	Neither agree nor disagree (%)	Disagree (%)
Overall	28	21	72	7	-
Supervisors	13	23	69	8	-
Subordinate staff	15	20	73	7	-

Source: Based on data collected during the field survey.

Relations between supervisors and subordinates: field–level staff

In Pakistan, organisational relationships have traditionally been typified as involving an authoritative order where the discourse for tasks and directions is essentially top-down. The environment is one where employees do not act for themselves, but receive formal approval prior to taking action. Compliance with authority is the operative norm. This environment has restricted individual development, innovation and organisational performance. The survey asked a series of questions about the relationships between individuals and their supervisors. Approximately two-thirds of staff felt comfortable discussing a work-related grievance with their immediate supervisor (35 per cent strongly agreed), although one-fifth did not. The supervisory staff indicated close relationships with their supervisors. Eighty-two per cent of those who responded indicated that their working relations with their supervisors were good (69 per cent strongly agreed). By contrast, 53 per cent of subordinate staff strongly agreed or agreed that they had good working relations with their supervisors. However, one-third of respondents did not agree (Table 9.12).

Table 9.12 **Distribution of field–level respondents: by relationship between supervisors and subordinate staff**

	Number of respondents	Strongly agree (%)	Agree (%)	Neither agree nor disagree (%)	Disagree (%)
Overall	28	35	35	12	18
Supervisors	13	69	23	8	-
Subordinate staff	15	7	46	14	33

Source: Based on data collected during the field survey.

Awareness of the VAT system: field–level staff

On the question of familiarity with the VAT system, its laws and procedures, only 11 per cent of field-level respondents indicated that they have this knowledge. The supervisors were more informed. The respondents also had limited knowledge of the organisational infrastructure of the VAT (Table 9.13).

Table 9.13 **Percentage distribution[1] of field–level respondents: by type of VAT knowledge**

staff	Overall (%)	Supervisors (%)	Subordinate (%)
1. Familiarity with VAT law and regulations	11	15	7
2. Familiarity with VAT work load	50	61	40
3. Familiarity with VAT organisational set-up	11	15	13

Note: [1]Percentage of the 28 respondents who replied 'yes' to the questions.
Source: Based on data collected during the field survey.

The field-level respondents were asked to identify problems they might face with the introduction of VAT in terms of taxpayer identification, registration, assessment and tax collection. Those who responded indicated that a VAT covering all stages of production and distribution up to the retail trade level would demand substantial resources from the field-level tax administration. The majority of those who responded (81 per cent) believed that they were already over-burdened and implementation of the VAT would likely increase their workload. The increased workload was also perceived as having a significant effect on their morale: potentially it would reduce service effectiveness and divert resources to deal with resistance to change, rather than pursue improvement. From the field-level perspective, a decision on VAT implementation, therefore, needed to be matched with major structural changes.

A 15 per cent uniform VAT rate was viewed by 21 per cent of the field-level respondents as appropriate, 43 per cent indicated the rate was high, and 36 per cent viewed it as low (Table 9.14).

Table 9.14 **Distribution of field–level respondents: by type of opinion on a 15% VAT rate**

Opinion	Overall (%)	Supervisors (%)	Subordinate staff (%)
Low	36	31	40
Appropriate	21	23	20
High	43	46	40

Source: Based on data collected during the field survey.

The field-level respondents were asked about the need and type of training for efficient implementation of the VAT. Of the 28 respondents, approximately 90 per cent indicated that they would like to have training on VAT audit, VAT returns assessment, taxpayer education campaigns, VAT concepts and VAT computation (Table 9.15).

Table 9.15 **Distribution[1] of field–level respondents: by type of need for training on the VAT**

	Overall (%)	Supervisors (%)	Subordinate staff (%)
1. Audit of VAT returns	93	92	93
2. Preparation of management reports	21	31	13
3. On taxpayers education campaign	96	100	93
4. VAT concept	86	92	80
5. VAT computation	96	100	93

Note: [1]Percentage of the 28 respondents who replied 'yes' to the questions.
Source: Based on data collected during the field survey.

Separate questions in the survey asked respondents to indicate means of identifying potential VAT-taxpayers. Eighteen per cent of the field-respondents supported a door-to-door campaign. Fifty-seven per cent were in favour of identifying taxpayers from income and other tax returns. The majority of the respondents (82 per cent) indicated that identification of the potential taxpayers should be through a detailed trade establishment survey (Table 9.16).

Table 9.16 **Distribution[1] of field–level respondents: by source of assessment of potential VAT–taxpayers**

	Overall (%)	Supervisors (%)	Subordinate staff (%)
1. Through "door-to-door" campaigns	18	15	20
2. Assessment from income and other tax returns	57	46	67
3. Surveys	82	85	80
4. Records of suppliers	36	38	33

Note: [1]Percentage of the 28 respondents who replied 'yes' to the questions.
Source: Based on data collected during the field survey.

Business entities

The business segment of the field survey included manufacturing, wholesale and retail business establishments. Twenty-seven (50 per cent) survey respondents were in the retail business, 15 (28 per cent) were in the wholesale business and 12 (22 per cent) were in the manufacturing sector - four were large industrialists and the remaining eight were owners of small manufacturing units. The respondents from the wholesale business sector were also drawn from large wholesale business establishments, including bonded warehouses and small wholesale establishments. The majority of the sample establishments (or respondents) was single proprietorship's (68 per cent). In 73 per cent of cases owners were the managers of the business. Of the total business respondents, 33 (61 per cent) were educated, whereas 21 (39 per cent) had some or no education (Table 9.17).

Table 9.17 **Percentage distribution of business entity respondents: by level of education and by type of business establishment**

	Overall total	Manufacturing business	Wholesale business	Retail business
Total respondents	54	12	15	27
Percent	100	100	100	100
Educated	61	92	87	33
Some education or no education	39	8	13	67

Source: Based on data collected during the field survey.

Among the establishments surveyed, maintenance of business accounts by qualified accountants varied considerably by economic activity. Of the total establishments, 14 business establishments (26 per cent) employed full-time accountants on a regular basis, whereas five (17 per cent) of the business-entity respondents indicated that business accounts were maintained by part-time accountants. In 15 establishments, business accounts were maintained by the owners. A large number of business establishments (16) provided no details on the question (Table 9.18).

Table 9.18 **Percentage distribution of business–entity respondents: by person maintaining VAT accounts and by type of business establishment**

	Overall total	Manufacturing business	Wholesale business	Retail business
Total respondents	54	12	15	27
Percent	100	100	100	100
1. Full-time accountant	26	58	33	7
2. Part-time accountant	17	8	47	4
3. Owner	28	33	20	30
4. No response	29	-	-	59

Source: Based on data collected during the field survey.

By type of economic activity, 58 per cent of the manufacturing establishments employed regular full-time accountants, eight per cent part-time accountants and in 33 per cent of cases, business accounts were maintained by the owners/managers themselves. The ratio of full-time accounts was higher in large scale manufacturing establishments, while accounts of most of the small scale manufacturing establishments were maintained by the owners. The wholesale business accounts were largely maintained by part-time accountants (47 per cent), followed by full-time regular accountants (33 per cent), while 20 per cent of respondents indicated that they maintained business accounts. In the retail trade, 59 per cent of those who responded did not reply to the question. Of the remaining 41 per cent, 31 per cent indicated that they themselves maintained accounts, and in only 11 per cent of cases did respondents employ full-time or part-time accountants (Table 9.18).

The business entity respondents were asked about their preferences for taxes. Twenty-three (43 per cent) of those who responded preferred to pay a fixed tax. The main supporters of the fixed tax were respondents from retail businesses; seven of the 27 who responded from this group preferred to pay fixed tax. Only two (seven per cent) of the retail business respondents preferred to pay income tax and four (17 per cent) consumption tax, while 17 per cent indicated no response to the question. The wholesale business respondents were also divided on their preference for tax. Five (33 per cent) of the 15 respondents preferred to pay a fixed tax, three (15 per cent) preferred income tax and six (40 per cent) preferred a consumption tax (Table 9.19). The large-scale manufacturing respondents overwhelmingly supported a consumption tax. Of the 12 respondents, eight (67 per cent) supported a tax on consumption (the majority supported a consumption tax as a substitute for income tax), 17 per cent supported a tax on income, and eight per cent supported a fixed tax. Only one respondent did not respond (Table 9.19). Preference for a consumption tax across establishments varied considerably. The respondents from large business establishments preferred a consumption tax, whereas respondents from small business establishments were in favour of a fixed tax (Table 9.19).

Table 9.19 **Percentage distribution of business entity respondents: by type of tax preference, and by business establishment**

	Overall total	Manufacturing business	Wholesale business	Retail business
Total respondents	54	12	15	27
Percent	100	100	100	100
1. Fixed tax	43	8	33	63
2. Tax on income	13	17	20	7
3. Tax on consumption	33	67	40	15
4. No response	11	8	7	15

Source: Based on data collected during the field survey.

On the question of the preferred tax payment period, the majority of business entities (37 per cent) preferred the present quarterly payment period, while 33 per cent preferred to pay tax annually. The preference of the remaining 30 per cent of respondents was for payment of taxes semi-annually (11 per cent) or monthly (two per cent). Seventeen per cent of respondents did not express their preference (Table 9.20).

Table 9.20 **Percentage distribution of business entity taxpayer respondents: by preferred filing/payment period and by type of business establishment**

	Overall total	Manufacturing business	Wholesale business	Retail business
Total respondents	54	12	15	27
Percent	100	100	100	100
1. Annually	37	8	13	56
2. Semi- annually	11	17	13	7
3. Quarterly	33	67	67	7
4. Monthly	2	-	-	4
5. No response	17	8	7	26

Source: Based on data collected during the field survey.

No significant differences in preferences for the quarterly filing/payments period were noted in manufacturing and wholesale business establishments (Table 9.20). Differences in the tax payment period, by economic category, are mainly due to retail trade respondents who preferred to pay tax annually. The majority of the retail trade respondents indicated that because of the size of their business it would not be feasible for them to submit tax returns on a quarterly basis. Their argument was consistent with international practice (see chapter 5). The majority of countries with the VAT have either exempted small businesses below a certain threshold level, or small businesses are permitted to submit tax returns annually.

Familiarity with the VAT system was low across business establishments. Thirty per cent of business entity respondents did not have knowledge of the VAT laws, regulations and infrastructure. Of the 54 who responded, 11 (20 per cent) favoured the VAT, whereas 24 (44 per cent) did not (Table 9.21). The majority of the manufacturing sector respondents favoured a VAT, whereas the majority of the respondents from wholesale and retail businesses did not.

Table 9.21 **Percentage distribution of business entity respondents: by type of business preference on a VAT system and by type of business establishment**

	Overall total	Manufacturing business	Wholesale business	Retail business
Total respondents	54	12	15	27
Percent	100	100	100	100
1. In favour	20	50	13	11
2. Not in favour	44	33	47	48
3. No response	5	-	7	7
4. Don't know	31	17	33	34

Source: Based on data collected during the field survey.

Approximately two-thirds of the business entity respondents indicated that the implementation of a VAT would increase their bookkeeping requirements (69 per cent). Eighty-five per cent of the respondents indicated that their workload to process receipts/invoices would increase. Approximately three-quarters (74 per cent) of those who responded indicated that it would be difficult for them to maintain accounts separately for exempt/zero-rated and standard rate goods and consequently, computing VAT accurately would be difficult (Table 9.22).

Table 9.22 **Percentage distribution[1] of business entity respondents: by type of problems in filling VAT returns and by business establishment**

	Overall total	Manufacturing business	Wholesale business	Retail business
1. Increased bookkeeping requirements	69	42	67	82
2. Voluminous receipts/invoices to process	85	67	80	96
3. Difficulty in computing the VAT	74	67	67	82
4. Difficulty in accounting exempt/zero rate goods	65	42	60	78

Note: [1]Percentage of the 54 respondent.
Source: Based on data collected during the field survey.

On the question of a 15 per cent VAT rate, out of 54 business entity respondents, 50 (93 per cent) regarded that rate as high, while only four (seven per cent) believed the 15 per cent was reasonable. No business entity respondent indicated that the rate was low (Table 9.23).

Table 9.23 **Distribution of business entity respondents: by type of opinion on a 15% VAT rate**

	Overall total	Manufacturing business	Wholesale business	Retail business
Total respondents	54	12	15	27
Percent	100	100	100	100
Low	-	-	-	-
Right	7	25	7	-
High	93	75	93	100

Source: Based on data collected during the field survey.

The majority of business entity respondents were of the view that the VAT system should be based on a simplified method of record keeping, return filing, refund and payment methods (Table 9.24).

Table 9.24 **Percentage distribution[1] of business entity respondents: by type of suggestion on the VAT system and by type of business establishment**

	Overall total business	Manufacturing business	Wholesale business	Retail
Of the Total respondents				
1. Simplified method of record keeping	85	83	87	85
2. Simplified method of VAT return filling	83	75	93	82
3. Simplified method of tax credit claim	87	92	87	85
4. Simplified method of VAT payments	89	92	93	85

Note: [1]Percentage of the 54 respondents.
Source: Based on data collected during the field survey.

The business entity respondents' views were sought on how the Pakistan government's financial position could be improved. The survey respondents indicated that the government should control corruption, tax agricultural sector income, reduce public expenditure and control the massive inflow of smuggled goods. However, suggestions varied across businesses. Forty-two per cent of the respondents from manufacturing establishments suggested that income from the agricultural sector should be taxed, while the majority of the wholesale and retail business respondents suggested control of corruption (Table 9.25).

Table 9.25 **Percentage distribution of business entity respondents: by type of suggestions on improvement of the government's financial position and by type of business establishment**

	Overall total business	Manufacturing business	Wholesale business	Retail
Total respondents	54	12	15	27
Percent	100	100	100	100
1. Control corruption	43	25	53	44
2 Reduce government expenditure	17	17	13	19
3 Tax agricultural sector	24	42	27	15
4. Control massive inflow of smuggled goods	11	8	7	15
5. Tax business and individuals fairly	5	8	-	7

Source: Based on data collected during the field survey.

It was observed that corruption in maintaining business accounts was significant across businesses. Various methods were used to avoid tax. The majority of business establishments, for example, maintained two sets of books, one for public use and the other secret, and such establishments paid bribes if tax collectors expressed curiosity about the 'real books'. Also use of "*hundi*" (promissory notes) to avoid proof of business transactions was found to be common in wholesale business. In the majority of cases, the respondents indicated that the tax department functionaries were fully aware of illegal practices and often were partners in support of the system. Some of the respondents indicated that they paid "*monthly batha*" (fixed amounts) to tax functionaries for their collusion.

Collusion between tax collectors and taxpayers was found to be the most established form of corruption. A newly established distributor indicated that he honestly paid tax to the government, but his returns were not accepted by the tax department; instead the tax department calculated his tax liability as being five times more than the actual liability. He indicated that after spending substantial resources, including waiting long hours outside the tax officer room and facing humiliation and harassment, he eventually paid a fixed amount, not to the government, but to a tax inspector who comes regularly to collect *monthly batha*. One of the respondents was asked why he was keeping a double set of account books; he explicitly answered: "My day and night's hard earnings were not for government officials' extravagant living" (pers. comm. 14-01-1994).

Grass–roots politicians

The respondents of the survey belonging to this section were grass-roots politicians. The majority of them (approximately two-thirds) were educated. Of this, approximately one-third were lawyers by profession. They were in the age group of

40-65 years, and as elected members of district councils were actively involved in area politics and socio-economic and cultural activities. The respondents were asked a series of questions on the role of the government in the provision of public services. They were asked to assess the availability of basic services in the areas they were representing, and the future demand for these services, the community's willingness to pay user charges, and their preference for various taxes, including the VAT.

The majority of grass-roots politicians who responded held government in low esteem. Two main reasons were identified for their disenchantment: (i) the resources allocated by the government for social sector development, for example, primary education, primary health, water supply and sanitation, were poorly funded; and (ii) there was wastage of resources in delivery of public services.

The majority of respondents viewed centralised policy direction as inefficient. Although local development projects/programs were undertaken for the benefit of the community, the communities were not greatly involved in policy design and implementation. As a result, many policies lacked proper direction and incentives for acceptance, and ultimately failed in implementation. A number of examples were given by the respondents where centralised policy implementation lacked fit and resulted in wastage of resources. The development of high cost curative health facilities in the rural areas without supporting medical staff and medicines, for example, resulted in substantial wastage of resources. The large rural health centre buildings, in the majority of cases, were used for purposes other than providing medical facilities to the people of the area. Similarly, the policy of promoting secondary and higher education, instead of developing primary education facilities, created an imbalance; students in the primary school age group were not admitted to schools because of lack of infrastructure, while the capacity of institutions providing higher education was not fully utilised. The majority of those who responded indicated that public expenditure was likely to be more worthwhile if it involved intended beneficiaries in planning, preparation, execution and supervision of new and existing facilities in the social sectors.

The respondents indicated that most local development does not need intensive capital investment and sophisticated technology. In the past, when local representatives were involved in development activities, the majority of the projects were completed with substantially low costs. The grass-roots politicians suggested that the existing arrangements needed to be revamped to devolve primary responsibility and administrative powers to the local representatives.

The respondents were asked to assess the availability of basic social amenities, such as schools, health services, public transport, electricity, piped water and sewerage in their areas. Nearly, 80 per cent of respondents indicated that these facilities were grossly deficient (Table 9.26).

Table 9.26 **Percentage distribution[1] of grassroots politicians' responses: by type of availability of basic public services by province**

	Overall	Punjab	Sindh	NWFP[2]	Baluchistan
1. School facilities	19	20	22	17	14
2. Hospital facilities	16	10	11	17	14
- Outdoor health facilities	16	10	11	33	14
- Indoor health facilities	22	30	22	17	14
3. Public transport facilities	22	30	22	17	14
4. Electricity facilities	25	30	33	17	14
5. Telephone facilities	19	20	22	17	14
6. Piped water facilities	13	10	11	17	14
7. Sewerage facilities	13	20	22	17	14

Notes: [1]Percentage of the 32 respondents.
[2]North West Frontier Province.
Source: Based on data collected during the field survey.

On the question of the community sharing the cost of publicly provided services, 27 (84 per cent) of those who responded indicated that these costs should be borne in full by the federal and provincial governments. Only five (16 per cent) of the respondents indicated that local taxes should be raised for financing public services (Table 9.27).

Table 9.27 **Percentage distribution of grassroots politicians' responses: by type of financing of public services and by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	32	10	9	6	7
Percent	100	100	100	100	100
1. Local taxes	16	20	11	17	14
2. Federal and provincial grants	84	80	89	83	86

Source: Based on data collected during the field survey.

On the question of raising funds and their allocation for area development, of the 32 respondents, eight (25 per cent) indicated that it was both appropriate and possible to exact the users' charges necessary to support the provision of social services. This ratio varied across provinces. The majority of the respondents, 17 (53 per cent) stressed that the community should collect funds which should then be spent according to the needs of the community without interference from the federal and provincial governments. Only seven (22 per cent) of respondents supported the notion that federal/provincial governments should collect and invest taxes for local area development (Table 9.28).

Table 9.28 **Percentage distribution of grassroots politicians' responses: by type of mode of future financing of public services by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	32	10	9	6	7
Percent	100	100	100	100	100
1. Community contribution to the provision of public services	25	30	22	34	14
2. Community collects and spends fund	53	50	56	33	72
3. Government collects and spends fund	22	20	22	33	14

Source: Based on data collected during the field survey.

The respondents were asked to indicate their preference for taxes. Five (16 per cent) of those who responded preferred taxes on income and four (12 per cent) preferred taxes on consumption; 23 (72 per cent) preferred not to pay any tax. Mixed responses were received on a province basis. Respondents from Punjab preferred taxes on income, while respondents from Sindh and NWFP favoured income and consumption taxes equally; respondents from Baluchistan preferred not to pay any tax (Table 9.29).

Table 9.29 **Percentage distribution of grassroots politicians respondents: by type of tax preference and by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	32	10	9	6	7
Percent	100	100	100	100	100
1. Taxes on income	16	20	22	17	-
2. Taxes on consumption	12	10	22	17	-
3. No tax	72	70	56	66	100

Source: Based on data collected during the field survey.

After being introduced to the main elements of the VAT system, the respondents were asked to give their opinion on its introduction. Only five (16 per cent) respondents favoured the introduction of the tax, while 84 per cent did not support its introduction (Table 9.30).

Table 9.30 **Percentage distribution of grassroots politicians' responses: by type of preference for the VAT system and by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	32	10	9	6	7
Percent	100	100	100	100	100
1. In favour	16	10	22	17	14
2. Not in favour	84	90	78	83	86
3. No response	-	-	-	-	-

Source: Based on data collected during the field survey.

The field survey observed a dichotomy in the respondents' responses. The majority of respondents did not favour the introduction of the VAT or payment of any other tax, yet urged that government should satisfy the demand for public services.

Approximately 90 per cent of those who responded indicated that pressure for additional schools, hospitals, public transport, drinking water and sewerage facilities was likely to intensify and the government should allocate additional resources to satisfy these growing demands (Table 9.31).

Table 9.31 **Percentage distribution of grassroots politicians' responses: by type of assessment of future needs of public services by province (per cent)**

	Overall	Punjab	Sindh	NWFP	Baluchistan
1. School facilities	91	90	89	83	100
2. Hospital facilities	91	100	89	83	86
- Outdoor health facilities	88	90	100	50	100
- Indoor health facilities	94	100	100	67	100
3. Public transport facilities	84	90	89	67	86
4. Electricity facilities	88	90	89	83	86
5. Telephone facilities	72	60	78	67	86
6. Piped water facilities	94	90	100	83	100
7. Sewerage facilities	91	90	89	83	100

Source: Based on data collected during the field survey.

On the question of suggestions for the improvement of the Pakistan government's financial position, 41 per cent of the respondents emphasised the control of corruption. Forty-one per cent indicated that the government was likely to save significant resources by devolving powers to grass-roots institutions. Community participation in area development activities was seen as an effective way for gaining efficient use of resources. Eighteen per cent of the respondents, however, suggested a reduction in government expenditure and a tax on agricultural incomes (Table 9.32).

Table 9.32 **Percentage distribution of grassroots politicians' responses: by type of suggestion for improvement of the government's financial position and by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	32	10	9	6	7
Percent	100	100	100	100	100
1. Control corruption	41	50	44	33	29
2. Reduce government expenditure	9	10	11	-	14
3. Tax agricultural sector	9	10	11	17	-
4. Community participation	41	30	33	50	57

Source: Based on data collected during the field survey.

Individuals/general public

The final category of the survey was a series of interviews and discussion groups with individuals with no particular affiliation. Ninety-two interviews and three focus group discussions were conducted. The respondents were in the age group of 26-60 years. Eighty per cent of the survey respondents were educated - 57 per cent had education above the primary level, and 23 per cent had primary education; while 20 per cent had no education. Eighty-nine per cent of the respondents were employed - 46 per cent in the public sector. In 51 per cent of cases, respondents had more than three adult members in their households. Fifty per cent of the respondents had less than three children, while in 41 cases respondents had more than three children. Twenty per cent of the respondents indicated fewer than two children in their household attended school, while 40 per cent indicated that more than two children of their household attended school. Forty per cent of the respondents indicated that their children were not going to school. Ninety-five per cent of the respondents indicated that they spent more than 90 per cent of their monthly income on food, house rent, utility (electricity, gas, and transportation) charges and school fees for their children (Appendix 9.1).

The majority of the respondents believed that the tax system was inequitable. According to the respondents government wasted money on frivolous programs and the cost of government programs far outweighed the benefits in many cases. The respondents claimed that in Pakistan many successfully cheat the government and that the government provides unequal opportunities to reduce the tax burden to different income groups. The complexities of the tax laws leave even the better educated taxpayers confused and bewildered. The common instances of intentionally violating tax laws identified by the respondents were: (i) not reporting full income; (ii) padding business expenses and other deductions; (iii) falsifying supporting documents in tax returns; and (iv) not filing tax returns.

Three-quarters of the respondents were of the view that some or most people pad business expenses and other deductions, and 64 per cent believed that some or most people do not report all of their taxable income. One in three of the respondents believed some or most people falsify supporting documents and/or lie to tax auditors during audits. Most of the respondents were of the view that failing to file a tax return was too obvious a violation of the law, but not reporting all taxable income and padding deductions were practised by many without any fear of exposure.

On the question of provision of public services, such as education, health, public transport, 95 per cent of the respondents emphasised that the government should provide these services. This behaviour was consistent across provinces (Table 9.33). On the question of users' charges, 47 per cent favoured paying charges for the use of public services, while forty per cent did not. Thirteen per cent of the respondents neither agreed nor disagreed. Fifth-two per cent of the 29 respondents interviewed in Punjab agreed to pay users' charges for the use of public services, followed by Sindh – 48 per cent of 27 respondents; NWFP – 48 per cent of 23 respondents; and 31 per cent of 13 respondents in Baluchistan (Table 9.33).

Table 9.33 **Percentage distribution[1] of individual/general public respondents: by type of government provision for public services and by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	92	29	27	23	13
Percent	100	100	100	100	100
1. Public Services					
- Education	94	86	93	100	100
- Health	94	90	93	96	96
- Public transport	96	90	100	96	100
- Piped water	96	96	93	96	100
- Sewerage facilities	88	96	93	78	77
2. Willing to pay for public services					
- Agree	47	52	48	48	31
- Disagree	40	27	44	48	46
- Neither agree nor disagree	13	21	8	4	23

Notes: [1]Percentage of the 92 respondents.
Source: Based on data collected during the field survey.

The majority of the survey respondents indicated that they preferred a tax system in which the burden was fairly distributed according to the ability to pay. Approximately two-thirds of the respondents emphasised that 'a person's tax liability should be determined by his/her ability to pay, rather than the benefits he/she receives from the government'.

On the question of tax preference, 77 per cent of the 92 respondents indicated that they did not want to pay tax. Of the remaining 23 per cent of the respondents, 19 per cent preferred to pay income tax, while only four per cent indicated their choice for taxes on consumption. The majority of the respondents categorically indicated that unless a tax system was introduced in which every citizen according to his/her income was treated equally, they were obliged to refrain from paying tax to the government (Table 9.34). These findings, of course, may appear unique and because of limited sample size cannot be used as representative for the whole society, but they do suggest increasing public disenchantment with the taxation system in the country.

Table 9.34 **Percentage distribution of individuals/general public responses: by type of tax preference and by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	92	29	27	23	13
Percent	100	100	100	100	100
1. Taxes on income	19	14	33	13	8
2. Taxes on consumption	4	3	7	4	-
3. No tax	77	83	59	83	92

Source: Based on data collected during the field survey.

On suggestions for the improvement of the government's financial position, 42 per cent indicated that increasing corruption was the main cause of government's financial difficulties. According to the respondents, unless the government took action to curb corruption there would be little improvement in its financial position. Twenty per cent indicated that government should reduce its expenditure. Exemptions of agricultural incomes from tax and the increased inflow of smuggled goods were seen by nearly a quarter of the respondents as major causes of weakness in the government's financial position (Table 9.35).

Table 9.35 **Percentage distribution of individuals/general public responses: by type of suggestions for improvement of the government's financial position and by province**

	Overall	Punjab	Sindh	NWFP	Baluchistan
Total respondents	92	29	27	23	13
Percent	100	100	100	100	100
1. Control corruption	42	45	37	48	39
2. Reduce government expenditure	20	14	30	17	15
3. Tax agricultural income	12	7	18	13	8
4. Control inflow of smuggled goods	12	14	4	13	23
5. Tax business and individuals fairly	14	20	11	9	15

Source: Based on data collected during the field survey.

It was observed, during both the focus group discussions and individual interviews that the general public does not have sufficient knowledge on taxation issues. Given their extractive nature and technical complexity, fiscal and tax-related policies rarely gain public affection or raise sustained curiosity. Only a few interviewers knew about the budget deficit. The limited proportion of the respondents who were aware of the budget deficits were unable to answer questions about the possible effects of the deficit on business conditions and personal income. These findings were consistent with Mueller (1963) and Song and Yarbough's (1978) findings on public attitudes towards fiscal programs.

Conclusions

The field survey has identified several areas of administrative reforms. Because of its small sample size, the results of the field survey may not be representative, nevertheless its findings clearly suggest that for the successful implementation of the VAT the government should address issues adversely affecting taxpayer compliance and weakening the administrative infrastructure. Some of the issues, like control of corruption and simplification of tax laws and procedures, are important and need attention. Equally important is the question how much discretionary power a tax officer should possess.

The poor service conditions and pay prospects of the tax office are not conducive to the attraction of the highly qualified and highly motivated officers/staff needed for the implementation of the VAT. Also, tension between field-level supervisors and subordinate staff on service matters, such as promotion and rewards, also need to be reduced before implementation of the VAT.

The majority of the respondents indicated that fiscal policies were implemented without consultation and education of those for whom the policies were designed. Consequently, there has been limited success in implementation. The survey found some apparent resurgence of the belief that more public spending, and less taxes. The survey respondent demonstrated strong support for the public sector involvement in the provision of social infrastructure, but were generally less willing to accept large levels of public taxation. Nearly, two-thirds of the respondents indicated that before a decision on VAT implementation is made, a favourable environment for its acceptance should be created. The taxpayers and tax administrators should be educated on various aspects of the tax. The experience of New Zealand and the Philippines supports their point of view. In New Zealand there was intensive education before the implementation of the Goods and Service Tax (GST) which resulted in gains both to the taxpayers and the tax administration, whereas in the Philippines a half hearted implementation of the VAT without sufficient groundwork resulted in socio-political resistance and administrative crisis.

10

Summary and Conclusions

Pakistan's fiscal system does not appear consistent with the needs of a developing society. Past state efforts to mobilise domestic resources in amounts adequate to satisfy development needs have been ineffective because of the inherent inflexibility of a system which is the result of years of ill-conceived and contradictory fiscal policies. Many changes, additions, modifications and amendments made in attempts to improve the system have in total adversely affected the fiscal base. In the 1980s, government revenue as a percentage of GDP fluctuated on an annual average basis by approximately 17 per cent. Discretionary changes in the tax structure and/ or improvements in tax administration, which were costly in terms of the administrative effort and the political resistance involved, were required each year to keep the proportion of the taxes in national income from falling. On the other hand, public expenditure as a proportion of GDP has risen from 23.9 per cent in 1977-78 to 26.2 per cent in 1992-93. Non-development expenditure has increased sharply from 60 per cent of total expenditure in 1977-78 to 74 per cent in 1992-93, while, in proportionate terms, development expenditure has decreased considerably (Appendix 3.1 and 3.3).

The rapid increase in non-development expenditure and the slow growth of revenues in the early 1980s has changed the current account from surplus into deficit. Further, increasing levels of public sector borrowing requirements for financing the growing fiscal gap, especially borrowings from non-bank sources, have pre-empted significant government resources for servicing the accumulated debt stock. Moreover, the increasing reliance on borrowed resources from the private sector at high interest rates has crowded out private investment. The government's strategy of addressing the problem of growing fiscal deficits by reducing public sector development expenditure has affected the maintenance of physical and social infrastructure particularly since the latter part of the 1980s.

The deficiencies of the tax structure have not only limited the Pakistan government's capacity to generate revenues, but they have also resulted in significant distortion in the allocation of resources and an unfair distribution of the tax burden. The inefficiency in resource allocation has resulted from an excessive reliance on the taxation of imports and a narrow coverage of domestic production for the purposes of sales and excise taxation. The tax system is widely believed to be unfair, with erosion of the income base by concessions given to different types of income and business activities, and the exploitation of loopholes (Naqvi, 1992:195). Revenue sharing arrangements between the central and the provincial governments have also been partly responsible for the evolution of the inefficient tax structure as the federal government has tended to impose taxes which are not part of the divisible pool. These failings of the taxation system have created many problems and abuses in the fiscal system, such as massive tax evasion, corruption, and the development of a large informal sector.

Various studies and reviews in the 1980s and early 1990s have argued the need for comprehensive reform of Pakistan's fiscal system in order to mobilise resources in amounts adequate to finance public expenditure in a non-inflationary manner, eliminate distortions and inequalities, and lower the administrative costs of compliance and collection. However, no comprehensive tax reform has so far been initiated by the government. Instead, further *ad hoc* management of fiscal affairs has aggravated the fiscal position.

The main objective of this thesis was to analyse policy options which could provide a buoyant new source(s) of revenue to the Pakistan government. Of the various policy options studied, the *status quo* policy scenario, entailing major restructuring of the fiscal system in Pakistan through increased taxation measures, was argued to be politically infeasible: therefore, no change of this sort is seen as desirable. The *adjustment* policy scenario assumed that the *status quo* policy option was inappropriate. Forecasts of government revenue and expenditure under the *status quo* scenario indicated that resource pressure on the government budget will continue to increase. The fiscal deficit is expected to widen from eight per cent of GDP in 1992-93 to more than 10 per cent of GDP in 1997-98. Clearly, this situation is not sustainable and would adversely affect "nation building" activities. Policy measures involving a very substantial program of resource mobilisation and restraint on non-development expenditure will *therefore* be required to reduce the fiscal gap to approximately five per cent of GDP, a ceiling presumed prudent by policy-makers in Pakistan and the international financial development institutions. The *adjustment* policy scenario investigated different policy options to help to improve the government's financial position.

It was found that the various policy options evaluated under the *adjustment* policy scenario cannot individually or collectively reduce the fiscal deficit to the desired level. Most of the options investigated under the *adjustment* scenario would be difficult to implement because of political resistance. For example, a tax on agricultural incomes could be a potent source of revenue - the tax would help the government to close many loopholes and inefficiencies in the taxation system, particularly through removing the *de facto* exemption for capital gains, and preventing the possibility of disguising other incomes as if they come from agriculture. *However*, implementation of this option is not feasible because of political resistance.

Fiscal arguments in favour of privatisation of public sector corporations are also weak. There is empirical evidence to show that changing the locus of ownership from public to private is not a sufficient condition for improvement in fiscal management (Naqvi and Kemal, 1991:107). Similarly, it was argued that recourse to users' charges and a cap on defence spending is also politically and strategically unacceptable because these measures are frequently successfully opposed by pressure groups and the voting public.

The VAT is a policy option available to the government of Pakistan which is viable. Use of a broad-based consumption type VAT in both developed and developing countries has achieved considerable success in terms of coverage, generating increased revenue and being administratively simple. The tax is a multi-stage, destination-based tax which includes all goods and services in its base (except those explicitly exempted). The tax is more comprehensive than a single-stage sales taxes, and is more product-neutral and factor-neutral than other forms of taxes on sales. In its ideal form, the tax represents simply a proportionate levy on personal consumption. The tax is neutral regarding the production techniques that a business adopts, and provides a considerable economic and administrative advantage. However, the VAT's regressive effects on income distribution have proven to be a significant barrier to its political acceptability. In many countries the tax has created resentment and perpetuated the "politics of envy". In a cash economy like Pakistan where record keeping is weak, it may be difficult to acquire the VAT's perceived benefits. The tax imposes added administrative and compliance costs on the tax collecting agency and taxpayers. Furthermore, shortages of physical and human capital are likely to impede the tax administration's ability to deal effectively with a large number of VAT taxpayers in a comprehensive manner.

The study through descriptive, analytical and evaluative methods investigated the impact of the introduction of VAT in Pakistan on government revenue, its distributional consequences, taxpayer compliance, and administrative convenience under three scenarios. Scenario 1 assumes a uniform VAT structure without any exemptions. Scenario 2 assumes zero-rating of various household consumption items and a standard rate of 15 per cent for the remaining consumption items. Scenario 3 assumes a multiple VAT rate system. The study has assessed potential political support or opposition to the VAT system through the analysis of the distributional consequences of the VAT burden on various income groups. The Lorenz-curve technique has been used to observe the intensity of income concentration across income groups during the pre-VAT and post-VAT levels of income inequality. Gini-coefficients have been computed to assess the VAT impact on income distribution at the national, rural and urban levels. The Attickson welfare index has been constructed to assess the effect of VAT implementation at the national, rural and urban levels. However, the study has focused on concepts of equity, or fairness, from the point of view of how regressive the tax might be, not whether regressivity is acceptable. The administrative feasibility of the VAT has been assessed on the basis of other countries' experiences with VAT. These experiences differ, but clearly suggest that a country considering VAT implementation should have reasonable political support for VAT and an efficient tax administration. The experiences of the governments of Italy and the Philippines suggest that a country must be able and willing to administer the VAT effectively. If this is not the case, tax evasion may become "pervasive and large" and reduce VAT revenue significantly.

Field research through a survey in eight districts within the four provinces of Pakistan, and in New Zealand and the Philippines, was undertaken to assess the behavioural responses of key policy makers, legislators, business entities, industrialists, grass-roots politicians, field level tax organisation staff and the general public to identify the problems and obstacles affecting domestic resource mobilisation efforts. The field survey in Pakistan sought the opinions of most of the major groups in society with respect to social needs, taxation structure, and feasibility of the introduction of a VAT. The survey provided an in-depth insight into people's perceptions of a particular tax, as well as of the taxation structure as a whole.

A review of 23 countries with VAT finds that in the majority of countries, a consumption type VAT with liability determined by the credit method has been used effectively to reduce fiscal deficits and to rationalise direct and indirect tax arrangements. In most cases the regressivity of the tax has been mitigated through a well targeted system of compensation and public transfers. Analysis suggests that the macroeconomic consequences of VAT, measured in terms of various macroeconomic variables such as growth in consumer prices, economic growth, investment and improvement in international competitiveness, are difficult to isolate because of the concurrent interaction of various economic factors. Notwithstanding, the study suggests that in the majority of countries surveyed, the introduction of the VAT has not created any adverse economic consequences of a severe nature.

The study finds that implementation of VAT in Pakistan would provide a strong basis for a long-term expansion in government revenue. Within five years of implementation the government would be able to reduce fiscal deficits substantially, while maintaining public sector development expenditure at a moderate level. The results of simulation exercises on scenario 1 indicate that a 15 per cent uniform VAT, without exemptions and zero-rating, could reduce the fiscal deficit from eight per cent of GDP in 1992-93 to less than two per cent of GDP in 1997-98. On primary accounts (government expenditure *less* interest payments *minus* government revenue), the budget on an annual average (1993-98) basis would have surpluses equal to approximately three per cent of GDP. The fiscal deficit remaining would be due to the interest payment liability on outstanding debt stock. Assuming that scenario 1 would not be acceptable to politicians and the voting public, scenario 2 investigated the impact of zero-rating for various household consumption items and a standard VAT rate. Under these conditions, the fiscal deficit would average approximately 5.9 per cent of GDP during 1993-98. The primary deficit would be less than one per cent. Again most of the remaining deficit would be as a result of debt servicing payments. Recourse to a multiple VAT rate system (scenario 3) would also result in a reduction of the fiscal deficit - from eight per cent of GDP in 1992-93 to an average 5.8 per cent of GDP over the five year period (1993-98). Approximately 90 per cent of deficits under this scenario would be because of debt servicing liability.

The study finds that the distributional impact of the VAT in Pakistan would be regressive with respect to current income. Lorenz-curve analysis shows that under a flat rate VAT system income inequality would increase marginally. Under scenarios 2 and 3 the VAT impact would be identical on all income groups. Gini-coefficients computed on the basis of the distribution of incomes also indicate that VAT implementation in Pakistan would result in an increase in income inequality. The impact of a uniform rate VAT would be higher. On national average incomes, the Gini-coefficient would increase from a 0.4011 pre-VAT level to 0.4977. However, income inequality would be less under scenario 2 (Gini-coefficient 0.4546) and scenario 3 (Gini-coefficient 0.4548), but would remain higher than the pre-VAT level. Urban households would experience the largest increase in income inequality.

The welfare index shows that with the implementation of VAT, rural and urban households would be worse off in terms of welfare, relative to pre-VAT levels. Urban households would face a larger welfare loss compared to their counterparts in rural areas.

Because lower income groups would pay a higher percentage of their income than those earning higher incomes, a mechanism of public transfers and compensation would be needed to protect low-income households. However, the study recognises that the issue of compensation for low-income households under a VAT system is by no means straightforward. Compensation measures cannot be applied separately to each and every individual or household. It is difficult to design a comprehensive compensation mechanism across demographic groupings such as age, family size and its composition, housing status, labour status and so on. Unavoidably, a transfer mechanism may benefit some people more than others.

The most frequently used techniques to mitigate the regressivity of the VAT in the majority of countries with VAT have been lower or zero rates on products regarded as "necessities", that is, commodities and services which form basic items of low-income household consumption, and to tax “luxuries” at higher rates. The analysis suggests that zero-rating and exemptions of certain commodities, transactions and types of activities from the tax base would reduce tax regressivity, but low income households would still bear the highest tax burden. Since approximately one-third of the population lives below the poverty line (UNDP, 1991b:87), implementation of a broad-based consumption tax in Pakistan, in the absence of a social security system, would further increase the incidence of poverty. Under this situation, resistance to the introduction of VAT in Pakistan would likely be strong. One way to make the VAT politically acceptable in terms of VAT burden distribution would be to adjust the disposable income of low-income households and this would be phased out as income rose above the poverty level.

The study recognises that improvement in tax revenue collection in Pakistan will depend largely on voluntary compliance. However, both survey data and field survey observations suggest that this is correlated with taxpayers' perceptions of the tax system's fairness. The field survey suggests that in the present environment, the public perception of the tax system presents a serious threat to taxpayer compliance. Most of the survey respondents had little faith in the ability of the tax system to operate equitably. On the question of which tax system would be fairer to them, the majority of the survey respondents indicated that they would prefer a tax system which attached no tax liability to them!

The field survey outcome clearly suggests that if most of the practices influencing taxpayer confidence in the taxation system in Pakistan are not reversed quickly, taxpayer dissatisfaction will gain further momentum and there will be further erosion of integrity of the existing system. It is, therefore, important to politicians, policy-makers and tax functionaries that they understand the causes of non-compliance and develop new tools to combat it. As pointed out by the survey respondents, additional efforts seem to be necessary to facilitate compliance through simplified legislation and procedures, improved cooperation with taxpayers *via* better information and services, and reinforced attention to taxpayer rights. In order to obtain wide voter support, the introduction of VAT in Pakistan should clearly be linked to relevant expenditure which provides benefits to those paying VAT through community level development programs and projects, especially projects for social sector development. Also necessary is reform of the expenditure system, as well as the taxation system, to ensure that the revenue raised is spent efficiently. The field survey suggests that if government expenditure is not wisely utilised to produce social benefits, then it is less likely that such a taxation system will be widely supported by the voters.

It is concluded from the field survey that policy-makers perceive the VAT as a rational opportunity for the government of Pakistan to reduce substantially the fiscal deficit and maintain public sector development activities. Tax administrators surveyed at the executive level were in favour of the tax, whereas a majority of the field administrators surveyed were lacking theoretical and operational knowledge of a VAT. The business community support was conditional. To the business community, if the VAT reduces the burden of other taxes, it might be good for them, provided the increased documentation requirements do not put too much of a compliance cost burden on them. The grass-roots politicians surveyed initially saw no need for a new tax. Instead, they argued that the existing tax administration should be improved. According to them, the government could generate substantial revenue from improvements in tax administration and in the control of corruption. They would, however, be willing to support the VAT if they were allowed to spend taxes according to their own priorities, without much central government intervention. The field survey found that a majority of the general public respondents was ignorant of tax matters.

It follows from the field survey data analysis that a favourable environment for VAT acceptance in Pakistan will need to be created. Taxpayers, as well as tax administrators, should be educated on the various aspects of the tax. The field survey found that the majority of small business entities were ignorant of how to switch from a sales tax to a system of VAT. The experiences of other countries with VAT suggest that administration of the VAT is complex and depends on each taxpayer maintaining accounts in sufficient detail. In an economy such as Pakistan, where the level of maintenance of accounts is generally poor, it will require considerable effort to educate people to understand VAT and to move from cash transactions to documented transactions. The study, therefore, emphasises that unless extensive education is imparted to educate the general public, as well as the business community, successful implementation of the VAT in Pakistan is unlikely to be achieved.

The survey revealed that there is a need to improve the environment in the tax offices and behavioural attitudes of the tax functionaries with a view to providing more facilities to taxpayers. Enhanced staff morale through greater participation in decision making and information sharing would improve the tax office work environment substantially. Existing bureaucratic tendencies discourage the taxpaying public from paying their tax honestly. In a broad-based VAT system it is, therefore, necessary that centralisation of power should be minimised in a manner such that issues are decided at the respective stations without orders having to be sought from above.

In Pakistan, the poor service conditions and pay prospects of tax office staff are not conducive to the attraction of highly qualified or highly motivated officers/staff needed for the implementation of VAT. A system of incentives for competence, efficiency and honesty (for example, advance increments and accelerated promotions for tax staff) has been used by many countries for improvement in work efficiency. The field survey also found tension between field level supervisors and subordinate staff on service matters, especially on promotion issues. The success of VAT implementation in Pakistan will depend on field level tax functionaries having equitable service prospects. In-service training on VAT's theoretical and operational aspects, both inside and abroad, will help to improve the skills of tax functionaries.

The thesis has recapitulated the major substantive results of this study, and it now concludes by placing these results in a more general context. Specifically, the thesis discusses the qualifications that should be placed on the conclusions from the present investigations, as well as the related question of their implications for future research. The study should be viewed as part of an on-going research process. On the one hand, it represents an attempt to integrate comprehensive policy analysis on the strengths and weaknesses of the VAT system. On the other hand, it suggests a clear direction to policy-makers and politicians and others involved in government finance. But the results should not be regarded as "final" in any absolute sense: instead these are intended to stimulate further research.

The results of the study should be taken as only a careful approximation and interpreted with caution because most of them are based on the Household Income and Expenditure Survey (which did not cover the entire income-receiving population) and a small field survey which may be subject to errors of sampling and measurement. Further avenues of research suggested by this study are: to include other important factors disregarded by this study, including regional factors and behavioural responses, as well as compliance problems in estimating the revenue, equity and administrative implications of the VAT. Finally, all the reform proposals discussed in this study have political and administrative implications. Without political will and administrative motivation, no reform package will escape manipulation or abuse.

Appendix 2.1 **Consolidated budget: fifth five-year plan 1978-83** (current billion rupees)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	Total 5th plan (1978-83)	Av.[1] growth rate (%)
Total revenue	27.7	32.4	40.9	49.0	53.7	61.4	237.4	17.3
Total taxes	21.6	25.1	32.5	38.8	42.9	51.4	190.7	18.9
- Direct taxes	3.2	4.0	5.9	7.6	9.0	9.9	36.4	25.2
. Income tax	2.8	3.3	5.2	7.0	8.8	8.8	33.1	25.4
. Other	0.4	0.7	0.7	0.6	0.3	1.1	3.3	23.0
- Indirect taxes	18.4	21.1	26.6	31.2	33.9	41.5	154.3	17.7
. Import duties	8.0	9.8	12.1	13.6	14.7	18.1	68.3	17.6
. Export duties	0.3	0.3	0.4	0.7	0.4	0.4	2.2	3.3
. Excise duties	6.4	7.0	9.7	10.5	11.8	15.6	54.6	19.7
. Sales tax	1.6	1.9	2.4	2.9	3.3	3.5	14.0	17.0
Domestic	1.3	1.6	1.9	2.2	2.7	2.8	11.2	15.6
Imports	0.3	0.3	0.5	0.7	0.6	0.7	2.8	23.6
. Surcharges	0.9	1.1	0.7	1.7	1.8	2.4	7.7	22.1
. Other	1.2	1.0	1.2	1.9	1.9	1.5	7.5	5.6
Non-tax revenue	5.5	6.3	6.8	8.2	8.9	7.8	38.0	7.0
. T&T/ PO profits[2]	0.3	0.8	0.7	1.0	1.2	1.7	5.4	41.5
. Intr. & dividents[3]	1.91	2.2	2.5	3.1	1.9	3.7	13.4	14.1
. Other	3.3	3.3	3.6	4.1	5.9	2.4	19.2	-6.6
Self-financing by AB[4]	0.5	1.0	1.5	2.0	1.9	2.3	8.7	34.5
Total expenditure	42.1	49.6	56.0	64.5	72.4	87.1	329.6	15.6
- Current expenditure	25.0	29.1	34.2	38.7	46.0	57.7	205.7	18.2
. Govt. administration[5]	3.5	3.9	4.3	4.9	5.8	6.9	25.8	14.5
. Defence	9.7	10.2	12.7	15.3	18.6	23.2	80.0	19.1
. Community services	0.8	1.2	1.3	1.5	1.7	2.1	7.7	21.4
. Social services	3.3	3.4	4.2	4.9	5.6	7.0	25.0	16.4
. Economic services	2.4	1.7	1.7	1.4	2.0	2.2	9.1	-1.3
. Subsidies	1.8	3.7	3.7	2.4	2.5	2.8	15.1	9.5
. Interest payments	3.4	4.0	5.2	5.9	7.7	11.0	33.8	26.6
- Domestic	1.7	2.0	2.9	3.6	4.9	6.6	20.0	32.0
- Foreign	1.7	2.0	2.4	2.3	2.8	4.4	13.8	20.5-
. Other	0.3	1.1	1.1	2.4	2.1	2.6	9.3	56.8
- Development expenditure	17.1	20.5	21.8	25.8	26.5	29.4	123.9	11.4
Overall deficit	14.5	17.2	15.1	15.5	18.7	25.7	92.2	12.1
Financing:								
- Non-bank borrowing	3.0	2.0	1.9	5.4	7.5	14.4	31.2	36.9
- Bank borrowing	5.4	8.5	6.3	2.4	5.5	6.1	28.8	2.7
- External borrowing	6.1	6.7	6.9	7.7	5.7	5.2	32.2	-3.4
Memorandum items:								
GDP (market prices)	176.3	194.9	234.2	277.4	321.8	364.4	1392.7	15.6
As percentage of GDP								
Total revenue	15.7	16.6	17.4	17.7	16.7	16.9	17.1	
Total expenditure	23.9	25.5	23.9	23.3	22.5	23.9	23.7	
- Current	14.2	14.9	14.6	14.0	14.3	15.8	14.8	
- Development	9.7	10.5	9.3	9.3	8.2	8.1	8.9	
Overall deficit	8.2	8.8	6.46	5.6	5.8	7.0	6.6	
Non-bank borrowing	1.7	1.0	0.8	1.9	2.3	3.9	2.2	
Bank borrowing	3.0	4.4	2.7	0.9	1.7	1.7	2.1	
External borrowing	3.5	3.4	3.0	2.8	1.8	1.4	2.3	

Notes: [1]Annual average. [2]Telephone, Telegraph and Post Office departments profits. [3]Interest and dividends. [4]Public sector autonomous bodies under the budget. [5]Government administration.

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Appendix 2.2 **Consolidated budget: sixth five-year plan 1983-88** (current billion rupees)

	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	Total 6th plan (1983-88)	Av.[1] growth rate (%)
Total revenue	61.4	74.9	80.0	92.8	105.7	122.8	476.2	14.9
Total taxes	51.4	58.4	61.2	72.4	82.9	93.5	368.4	12.7
- Direct taxes	9.9	9.2	9.7	10.3	11.1	12.5	52.8	4.8
. Income tax	8.8	8.6	9.1	9.6	10.4	11.5	49.2	5.7
. Other	1.1	0.6	0.7	0.7	0.8	0.9	3.6	-3.5
- Indirect taxes	41.5	49.2	51.5	62.2	71.8	81.0	315.6	14.3
. Import duties	18.1	21.1	22.9	28.4	33.1	34.7	140.1	13.9
. Export duties	0.4	0.5	0.5	1.0	0.3	3.3	5.5	52.4
. Excise duties	15.6	15.8	15.4	15.6	15.5	17.6	79.9	2.4
. Sales tax	3.5	4.6	4.7	4.9	6.4	8.7	29.4	20.2
Domestic	2.8	3.7	3.5	3.6	4.6	5.2	20.5	13.3
Imports	0.7	1.0	1.1	1.4	1.8	3.6	8.9	37.7
. Surcharges	2.4	4.7	5.3	9.3	13.3	13.0	45.5	40.3
. Other	1.5	2.5	2.8	2.9	3.3	3.7	15.3	19.4
Non-tax revenue	7.8	13.9	16.2	17.5	21.0	23.6	92.1	24.9
. T&T/ PO profits[2]	1.7	2.1	2.4	2.8	4.1	4.1	15.4	19.3
. Intr. & dividents[3]	3.7	4.2	5.0	5.3	7.5	6.4	28.3	11.6
. Other	2.4	7.7	8.8	9.4	9.4	13.1	48.4	40.7
Self-financing by AB[4]	2.3	2.6	2.6	2.9	1.8	5.8	15.8	20.4
Total expenditure	87.1	100.0	116.8	134.5	152.4	180.4	684.0	15.7
- Current expenditure	57.7	71.9	83.8	94.7	116.3	133.6	500.3	18.3
. Govt: Administration[5]	6.9	9.7	10.6	10.9	16.1	14.6	61.7	16.2
. Defence	23.2	26.8	31.9	35.6	41.3	47.0	182.6	15.2
. Community services	2.1	2.7	3.0	3.6	4.5	4.2	18.0	15.0
. Social services	7.0	9.8	10.5	12.37	15.5	17.3	65.4	19.9
. Economic services	2.2	2.3	3.1	3.0	5.2	4.6	18.1	15.4
. Subsidies	2.8	4.7	5.4	5.7	5.8	8.0	29.5	23.5
. Interest payments	11.0	14.1	16.5	19.7	24.2	32.3	106.9	24.1
- Domestic	6.6	9.0	10.7	13.4	16.8	24.1	73.9	29.6
- Foreign	4.4	5.2	5.9	6.4	7.4	8.2	33.0	13.5
Other	2.6	1.9	2.8	3.9	3.8	5.7	18.0	17.4
- Development expenditure	29.4	28.1	33.1	39.8	36.2	46.7	183.8	9.7
Overall deficit	25.7	25.2	36.8	41.6	46.7	57.6	207.8	17.6
Financing:								
- Non-bank borrowing	14.4	12.3	12.9	27.0	27.4	30.9	110.4	16.6
- Bank borrowing	6.1	7.9	18.7	6.1	10.9	13.9	57.6	17.9
- External borrowing	5.2	5.0	5.2	8.6	8.4	12.7	39.9	19.7
Memorandum items:								
GDP (market prices)	364.4	419.8	472.2	514.5	572.5	675.4	2654.4	13.1
As percentage of GDP								
Total revenue	16.9	17.8	17.0	18.0	18.5	18.2	17.9	
Total expenditure	23.9	23.8	24.8	26.1	26.7	26.7	25.8	
- Current	15.8	17.1	17.8	18.4	20.4	19.8	18.9	
- Development	8.1	6.7	7.0	7.7	6.3	6.9	6.9	
Overall deficit	7.0	6.0	7.8	8.1	8.2	8.5	7.9	
Non-bank borrowing	3.9	2.9	2.7	5.2	4.8	4.6	4.2	
Bank borrowing	1.7	1.9	4.0	1.2	1.9	2.1	2.2	
External borrowing	1.4	1.2	1.1	1.7	1.5	1.9	1.5	

Notes: As per Appendix 2.1.
Sources: As per Appendix 2.1.

Appendix 2.3 **Consolidated budget: seventh five-year plan 1988-93** (current billion rupees)

	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	Total 7th plan (1988-93)	Av.[1] growth rate (%)
Total revenue	122.8	144.3	165.6	171.8	231.5	244.0	957.1	14.7
Total taxes	93.5	110.3	119.4	129.6	164.3	179.8	703.6	14.0
- Direct taxes	12.5	14.6	15.7	20.8	29.8	37.8	118.7	24.9
. Income tax	11.5	13.4	14.3	19.1	27.9	35.0	109.7	24.9
. Other	0.9	1.2	1.4	1.7	1.9	2.8	9.0	25.1
- Indirect taxes	81.0	95.8	103.7	108.9	134.5	142.1	584.9	11.9
. Import duties	34.7	37.9	44.4	46.4	61.8	63.2	253.7	12.7
. Export duties	3.3	4.5	5.0	4.1	0.0	0.0	13.6	-100.0
. Excise duties	17.6	20.2	23.3	25.0	30.7	35.5	134.8	15.1
. Sales tax	8.7	14.7	15.6	16.9	20.8	23.6	91.6	22.0
Domestic	5.2	7.5	7.3	7.8	10.0	11.2	43.7	16.6
Imports	3.6	7.2	8.3	9.1	10.8	12.5	47.9	28.4
. Surcharges	13.0	14.5	11.1	12.3	14.8	13.1	65.7	0.1
. Other	3.7	4.0	4.4	4.1	6.4	6.6	25.5	12.2
- Non-tax revenue	23.6	28.8	39.4	34.2	52.3	62.5	217.1	21.5
. T&T/ PO profits[2]	4.1	5.3	6.6	0.0	0.0	0.0	11.9	-100.0
. Intr. & dividents[3]	6.4	10.0	12.3	9.5	17.5	18.0	67.3	23.0
. Other	13.1	13.5	20.5	24.7	34.7	44.5	138.0	27.7
- Self-financing by AB[4]	5.8	5.2	6.8	7.9	14.9	1.6	36.4	-22.7
Total expenditure	180.4	201.2	221.6	261.0	321.5	351.9	1357.1	14.3
- Current expenditure	133.6	153.1	165.6	195.7	230.1	265.4	1009.8	14.7
. Govt: administration[5]	14.6	20.0	17.5	19.2	30.1	31.1	118.0	16.4
. Defence	47.0	51.1	58.7	64.6	75.8	87.8	337.9	13.3
. Community services	4.2	4.5	4.5	4.6	6.4	8.2	28.1	14.4
. Social services	17.3	19.3	20.2	28.1	32.1	38.7	138.5	17.4
. Economic services	4.6	5.1	3.9	3.6	9.3	10.2	32.1	17.4
. Subsidies	8.0	13.3	9.0	10.7	7.9	7.3	48.3	-1.6
. Interest payments	32.3	38.1	46.7	49.3	62.4	75.2	271.7	18.4
- Domestic	24.1	28.7	35.3	36.3	47.8	58.7	206.7	19.5
- Foreign	8.2	9.4	11.4	13.0	14.6	16.5	65.0	14.9
. Other	5.7	1.8	5.1	15.5	6.2	6.9	35.4	3.8
- Development expenditure	46.7	48.1	56.1	65.3	91.4	86.5	347.3	13.1
Overall deficit	57.6	56.9	56.1	89.2	90.0	107.9	400.0	13.4
Financing:								
- Non-bank borrowing	30.9	37.9	29.6	23.7	-0.5	21.0	111.6	-7.5
- Bank borrowing	13.9	0.8	3.5	43.4	72.5	62.6	182.8	35.0
- External borrowing	12.7	18.2	23.0	22.1	18.0	24.3	105.6	13.9
Memorandum items:								
GDP (market prices)	675.4	769.8	855.9	1020.6	1211.4	1342.0	5199.6	
As percentage of GDP								
Total revenue	18.2	18.7	19.3	16.9	19.1	18.2	18.4	
Total expenditure	26.7	26.1	25.8	25.6	26.5	26.2	26.1	
- Current	19.8	19.9	19.3	19.2	19.0	19.8	19.4	
- Development	6.9	6.3	6.5	6.4	7.5	6.4	6.7	
Overall deficit	8.5	7.4	6.5	8.7	7.4	8.0	7.7	
Non-bank borrowing	4.6	4.9	3.5	2.3	0.0	1.6	2.1	
Bank borrowing	2.1	0.1	0.4	4.2	6.0	4.7	3.5	
External borrowing	1.9	2.4	2.7	2.2	1.5	1.8	2.0	

Notes: As per appendix 2.1.
Sources: As per appendix 2.1.

Appendix 2.4 **Comparative statement of marginal tax rates on personal income**

Income brackets	Marginal tax rates (%)
1979-80 to 1985-86	
Exemption limit:	
Rupees 12,000 until 1984-85	0
Rupees 18,000 for 1985-86	0
Taxable income does not exceed rupees 10,000	15
Between rupees 10,001 and rupees 15,000	20
Between rupees 15,001 and rupees 20,000	25
Between rupees 20,001 and rupees 25,000	35
Between rupees 25,001 and rupees 30,000	40
Between rupees 30,001 and rupees 60,000	50
Between rupees 60,001 and rupees 100,000	55
Income exceeds rupees 100,000	60
1986-87 to 1987-88	
Exemption limit rupees 24,000	0
Taxable income does not exceed rupees 25,000	5
Between rupees 25,001 and rupees 50,000	15
Between rupees 50,001 and rupees 100,000	25
Between rupees 100,001 and rupees 200,000	35
Income exceeds rupees 200,000	45
1988-89 to 1991-92	
Where income is below rupees 100,000	10
Exemption limit:	
Rupees 40,000 for salary	
Rupees 30,000 for other income	
Where income exceeds rupees 100,000	
Exemption limit rupees 24,000	0
- Where taxable income is rupees 76,000	15
- Between rupees 76,001 and rupees 100,000	25
- Between rupees 100,001 and rupees 200,000	35
-Where taxable income exceeds rupees 200,000	45
1988-89 to 1991-92	
Where income is below rupees 100,000	10
Exemption limit:	
Rupees 40,000 for salary	
Rupees 30,000 for other income	
Where income is rupees 100,000 or more	
Exemption limit rupees 30,000	0
- Where taxable income is up to rupees 100,000	10
- Between rupees 100,001 and rupees 200,000	20
- Between rupees 200,001 and rupees 300,000	30
-Where taxable income exceeds rupees 300,000	35

Source: Revenue Division, Central Board of Revenue's official record on Marginal Tax Rates on Personal Income from 1979 to 1944, Revenue Division, Central Board of Revenue, Islamabad: Government of Pakistan.

Appendix 2.5 **Revenue sharing arrangements between the federal government and the provincial governments**

	Niemeyer Award 1937	Raisman Award 1951	National Finance[1] Comm 1962	National Finance[1] Comm 1964	National Finance[1] Comm 1970	National Finance[1] Comm 1974	National Finance[1] Comm 1991
Taxes on income[2] and corporate profits	50	50	50	65	80	80	80
Sales tax	-	50	60	65	80	80	80
Central excise on tea, tobacco and betel nut	-	50	60	65	80	-	80
Central excise on sugar	-	-	-	-	-	-	80
Export duty on jute and cotton	2.65[3]	62.5[3]	100	65	80[4]	80	80
Estate and succession Duties on agricultural Land	-	-	100	100	100	-	-
Taxes on the capital value of immovable property	-	-	100	100	100	-	-
Surcharges on natural gas[5]						100	100
Surcharges on electricity[6]							100

Notes: [1]Commission.
[2]Excluding income tax on emoluments of federal government employees.
[3]Confined to jute only.
[4]Confined to cotton only.
[5]On the basis of wellhead.
[6]Hydro power.

Sources: Government of Pakistan, 1978. *Statutory Orders Regulating Allocation of Revenues between Federal and Provincial Government 1978*, Ministry of Finance: Islamabad: Government of Pakistan.
National Finance Commission, 1991. *Report on the Distribution of Shareable Taxes between Federal Government and the Provinces,* Ministry of Finance, Islamabad: Government of Pakistan.

Appendix 4.1 **Developed and developing countries on value-added tax**

Country	Date of VAT introduction or proposed	VAT rates[1]	
		Introduction	As on January 1, 1993
Algeria	Jan. 1992	..	7, 13, 21, 40
Argentina	Jan. 1975	**16**	**13**
Austria	Jan. 1973	8, **16**	6, 10, **20**
Bangladesh	July 1988	**15**	**15**
Belgium	Jan. 1971	6, 14, **18**	1, 6, 12, **19.5**
Belorussia	Jan. 1992	..	28
Benin	Apr. 1991	**18**	**18**
Bolivia	Oct. 1973	5, **10**, 15	**10,** 13
Brazil[2]	Jan. 1967	**15**	7, **12**
Brazil[3]	Jan. 1967	**15**	**17**
Bulgaria	Mid. 1992	10	..
Canada	Jan. 1991	**7**	**7**
Czechoslovakia	1992	..	..
Chile	Mar. 1975	8, **20**	**18**
Colombia	Jan. 1975	4, 6, **10**	**14**
Costa Rica	Jan. 1975	**10**	**11**
Cote d'Ivoire	Jan. 1960	**8**	11.11, **25**, 35.13
Denmark	July 1967	**10**	**25**
Dominican Republic	Jan. 1983	**6**	**6**
Ecuador	July 1970	**4**, 10	**10**
Estonia	Jan. 1992	**10**	**10**
Fiji	July 1992	**10**	**10**
Finland	Oct. 1990	**17**	**19.05**
France	Jan. 1968	6, 4, **13.6**, 20, 25	2.1, 5.5, **18.6**
Germany	Jan. 1968	5, 10	7, **14**
Greece	Jan. 1987	6, **18**, 36	4, 8, **18**
Grenada	April 1986	**20**	**20**
Guatemala	Aug. 1983	**7**	**7**
Haiti	Nov. 1982	**7**	**10**
Honduras	Jan. 1976	**3**	**7**, 10
Hungary	Jan. 1988	15, **25**	15, **25**
Iceland	Jan. 1990	14, **24.5**	14, **24.5**
Indonesia	Apr. 1985	**10**	**10**
Ireland	Nov. 1972	5.26, **16.37**, 30.26	2.7, 10, 12.5, 16,**21**
Israel	July 1976	**8**	**18**
Italy	Jan. 1973	6, **12**, 18	4, 9, 12, **19**, 38
Ivory Coast[4]	Jan. 1960	8	5.26, 11, **25**, 35.13
Japan	Apr. 1989	**5**	**3**, 6
Kenya	Jan. 1990	**17**, 20, 40, 50, 270	5, 18, 30, 50, 75
South Korea	July 1977	**10**	**10**
Luxembourg	Jan. 1970	2, 4, **8**	3, **12**, 15
Madagascar	Jan. 1969	6, **12**	**15**
Malawi	May 1989	10, **35**, 55, 85	10, **35**, 55, 85
Malaysia	..	..	..

Country	Date of VAT introduction or proposed	VAT rates[1]	
		Introduction	As on January 1, 1993
Mali	Jan. 1991	10, **17**	10,17
Mexico	Jan. 1980	10	6,**15**,20
Morocco	Apr. 1986	7, 12, 14, **19**, 30	7,12,14,**19**,30
Netherlands	Jan. 1969	4, **12**	6,**17.5**
New Zealand	Oct. 1986	**10**	**12.5**
Nicaragua	Jan. 1975	**6**	5,6,**10**
Niger	Jan. 1986	8, **12**, 18	10,**17**,25
Norway	Jan. 1970	**20**	**20**
Pakistan	July 1994	**15**	**15**
Panama	Mar. 1977	**5**	**5**
Paraguay	Jan. 1992	**12**	**10**
Peru	July 1976	3, **20**, 40	**15**
Philippines	Jan. 1988	**10**	**10**
Poland	1991/2	5, **18**	..
Portugal	Jan. 1986	8, **16**, 30	5,**16**,30
Republic of China (Taiwan)	Apr. 1986	**5**	**5**,15
Romania	1992/3	**10**	..
Russia	Jan. 1992	..	..
Senegal	Mar. 1961	..	7,10,15,**20**,30
Singapore	..	..	..
South Africa	Sept. 1991	10	..
Spain	Jan. 1986	6, **12**, 33	6,**13**,28
Sweden	Jan. 1969	2.04, 6.38, 11.1	18,**22**
Tanzania	..	..	**7**
Thailand	Jan. 1992	**7**	1.5,2.5,7
Trindad and Tobago	Jan. 1990	**15**	**15**
Tunisia	July 1988	6, **17**, 29	6,**17**,29
Turkey	Jan. 1985	**10**	12,**15**
Ukraine	Jan. 1992	..	35
United Kingdom	Apr. 1973	**10**	**17.5**
Uruguay	Jan. 1968	5, **14**	14,**22**
Venezuela	1992	..	..
Yugoslavia	1994	..	..

Notes: ..Information not available.

[1]Rates shown in bold type are the standard rates applied to goods and services not covered by other especially high or low rates. Most countries use a zero-rate for a few goods, and Ireland, Portugal and the United Kingdom use it extensively to ensure that substantial amounts of goods and services are free of VAT.

[2]On interstate transactions depending on region.

[3]On intra-state transactions.

[4]These are effective rates. The statutory rates are computed on prices including tax.

Sources: Tait, A. A., 1988, *Value Added Tax: International Practice and Problems*, Washington, DC: International Monetary Fund:Table 1:3.

Tait, A. A., 1992. 'Introducing Value-added Taxes', in V. Tanzi (ed.), *Fiscal Policies in Economies in Transition*, Washington, DC: International Monetary Fund:Table 1:190.

Purohit, M. C., 1993. *Principles and Practices of Value-added Tax: Lessons for Developing Countries*, Delhi: Gayatri Publication:Table 1.1:3.

Appendix 4.2 **Value-added tax rates applicable on basic items – selected countries** (percent)

	Basic Foodstuffs	Clothing	Passenger Transport	Education Services[1]	Health Services[2]
Austria	10	20	10[3]	Exempt	Exempt[4]
Belgium	6	6	6[3]	Exempt	Exempt
Canada	0	7	Exempt	Exempt	Exempt
Denmark	22	22	Exempt	Exempt	Exempt
Finland	22	22	Exempt	Exempt	Exempt
France	5.5	18.6	5.5[3]	Exempt	Exempt
Germany	7	14	7 or 14	Exempt	Exempt
Greece	8	18	Exempt	Exempt	Exempt
Hungary	6	12	Exempt	Exempt	Exempt
Ireland	0	0 or 12.5[5]	Exempt[3]	Exempt	Exempt
Italy	4	9 or 19	Exempt	Exempt	Exempt
Luxembourg	3	12	6	Exempt	Exempt
Netherlands	6	18.5	0 or 6[3]	Exempt	Exempt
New Zealand	12.5	12.5	0 or 12.5	12.5	12.5
Norway	20	20	Exempt	Exempt	Exempt
Portugal	0	17	8[3]	Exempt	Exempt
South Africa[6]	12	12	12	Exempt	Exempt
Spain	6	12	6 or 12[3]	Exempt	Exempt
Sweden	25	25	Exempt	Exempt	Exempt
Turkey	8	12	12	Exempt	Exempt
United Kingdom	0	0 or 17.5	5	Exempt	Exempt

Notes: [1]Most countries treat education services provided by government bodies or other recognised bodies as exempt and "education" services provided by others as taxable. In Austria, education services provided by government bodies are not taxable while education services provided by others are exempt without credit for input tax.

[2]In most countries, such services must be provided by members of recognised bodies, to qualify. In Austria, services rendered by Social Security are exempted with credit for input tax. Health services rendered by hospitals are liable at 10 per cent and health services provided by doctors directly are liable at 20 per cent.

[3]Domestic passenger transport is liable at 5.5 per cent in France, 6 per cent in the Netherlands, 8 per cent in Portugal and 6 per cent (overland) or 12 (sea or air) in Spain. In the United Kingdom, zero-rate is applied to passenger transportation in vehicles designed or adapted to carry 12 or more passengers. In Ireland, passenger transport is exempt, but suppliers of international passenger transport services can recover input VAT. In Austria, cross-border passenger transportation services by ship and aircraft are exempt.

[4]Also, in some cases 10 per cent and 20 per cent.

[5]In Ireland and the United Kingdom, children's clothing is zero-rated.

[6]Tax rates and exempted status of various goods and services anticipated.

Source: Ernst & Young, 1991. *International VAT: A Guide to Practice and Procedures in 21 Countries*, London: Kogan Page:Appendix A:357.

Appendix 4.3 **Value-added tax registration limits - selected countries**

	Annual turnover limits[1]		VAT Reporting	Annual Reporting
	Goods	Services	Periods	Available[2]
Austria	AS 40,000	AS 40,000	Monthly, quarterly[3]	No
Belgium	No limit	No limit	Monthly or quarterly	yes
Canada	$ 30,000	$ 30,000	Monthly, quarterly[3]	yes
Denmark	DKK 10,000	DKK 10,000	Quarterly	No[6]
Finland	Fim 75,000	Fim 75,000	Monthly	No
France	FF 70,000	FF 70,000	Monthly or quarterly	No
Germany	No limit	No limit	Monthly, quarterly	Yes
Greece	No limit	No limit	Monthly, bi-monthly[4]	Yes
Hungary	No limit	No limit	Quarterly and annually	Yes
Ireland	IRL 25,000	IRL 25,000	Monthly, bi-monthly[4]	No
Italy	No limit	No limit	Monthly or quarterly[5]	Yes
Luxembourg	No limit	No limit	Monthly, quarterly[3]	Yes
Netherlands	No limit	No limit	Monthly or quarterly	No
New Zealand	NZ$ 30,000	NZ$ 30,000	One, two or six-monthly	No
Norway	Nok 12,000	Nok 12,000	Bi-monthly	No
Portugal	No limit	No limit	Monthly or quarterly	No
South Africa[6]	R 50,000	R 50,000	Monthly, bi-monthly	No
Spain	No limit	No limit	Monthly or quarterly	No
Sweden6	SEK 200,000	SEK 200,000	Monthly, or bi-monthly	No
Turkey	No limit	No limit	Monthly and annually	Yes
United Kingdom	L 35,000	L 35,000	Monthly or quarterly	Yes

Notes: [1]Some countries apply different limits to specific services: small retailers and professionals.

[2]Annual reporting is normally only available for certain types of entrepreneurs (for example, small traders) with the consent of the authorities. In Germany, every entrepreneur must file preliminary and annual returns.

[3]and annually.

[4]or quarterly and annually.

In Italy VAT is payable monthly or quarterly, but it is reported annually.

Income less than SED 200,000 is to be reported separately in ordinary income tax returns.

Source: Ernst & Young, 1991. *International VAT: A Guide to Practice and Procedures in 21 Countries*, London: Kogan Page:358.

Appencix 5.1 **Taxable persons and registration requirements under value-added tax - selected countries**

OECI countries

- Begium

A taxable person in the VAT system is any person whose activities contribute to effecting, in a regular and independent manner, supplies of goods or services, with or without a profit motive. Government bodies are not considered taxable persons. "Groups" or "Fiscal Unity" concepts do not exist. Registration rules generally apply to resident entrepreneurs. Non-resident entrepreneurs who have a permanent establishment are treated equally. But those who do not have a permanent establishment are required to appoint a resident member in their Board. Voluntary registration is permitted.

- Demark

Individuals, partnerships, companies, foundations, clubs, associations, and charities are registered for VAT or are required to register, whether profitable or profit-making or not. An entrepreneur who is taxable must apply to the Customs authorities for registration. When two or more companies resident in Denmark are under common control they may elect to be registered as a single group for VAT purposes. Companies which are not liable to be registered can apply for registration. Government bodies' obligation to VAT is limited.

- Neherlands

A taxable person in the VAT system is any one whose activities contribute to effecting, in a regular and independent manner, supplies of goods or services, with or without a profit motive. All entrepreneurs, including permanent establishment or non-Dutch companies carrying on business in a regular and independent manner, with or without a profit motive are required to register for VAT purposes. Government bodies are not taxable. However, the Government's commercial activities are treated for VAT purposes in the same manner as private business entities. Group concepts are not permitted.

- Frace

A taxable person in the VAT system is any person whose activities contribute to effecting, in a regular and independent manner, supplies of goods or services, with or without a profit motive. Government bodies not engaged in commercial activities are not considered taxable persons. Anyone who is making taxable supplies above 1,350 FFr per year, in a regular and independent manner, with or without a profit motive is required to register. No group treatment is permitted, therefore, all transactions taking place between members of groups are subject to VAT. Voluntary registration is permitted.

- Italy

An entrepreneur carrying on an independent business activity on a continuous basis is a taxable person. Artists, and professional persons or partnerships are considered to be taxable persons. Government bodies are considered as taxable persons. A group concept is allowed. In 1989 there were 5.416 million total VAT return filers.

- Luxembourg — Any person regularly supplying goods and services whether for profit or not is a taxable person. An entrepreneur engaged in an industrial, commercial or professional activity must register with the VAT authority. The concept of fiscal unity does not exist. Each taxable person (individual or legal body) must account for the tax independently.

- Norway — Any physical or legal person engaged in taxable activity is a taxable person and liable to VAT and needs to register for VAT when their taxable sales exceed ND12,000 in the last 12 month period. Government bodies, except for commercial activities, are not treated as taxable persons. Group registration is permitted. Registered VAT persons are liable for special investment tax, which is levied on durable items of business equipment. Voluntary registration is permitted.

- New Zealand — All persons regularly supplying goods and services, whether for profit or not, are taxable persons. This includes ordinary business, traders, professions, public authorities, club, societies, charities, whose supply of goods and services in any twelve month period exceeds or is likely to exceed NZ$30,000 are required to register. Group and voluntary registration is permitted.

- Sweden — The liability to pay tax arises from a commodity or services used in commercial activity. Any person associated with commercial activity is liable to pay VAT. VAT is applied on Government bodies. Special rules apply for group concept.

- Germany — Any entrepreneur who is resident in Germany and who makes taxable supplies within Germany has to register for VAT at the local tax office. Government bodies not engaged in commercial activities are not considered taxable persons and need not register for VAT. The VAT system permits all resident groups of companies to file one return. Voluntary registration is permitted.

- United Kingdom — A taxable person is any person (individual, partnership, company, trustee, club, association, charity) who makes taxable supplies above 35,000 Pounds in a year. Group may register as a single business. Voluntary registration is permitted

- Turkey — A taxable person can be any person who carries on a commercial, industrial, agricultural and professional activity in an independent manner and is liable to VAT, including small entrepreneurs and certain retailers.

Asian and Pacific countries

- South Korea — Anyone who is independently engaged in the supply of goods and services, regardless of whether or not the supply is made to earn profit, is a taxable person and must register at the tax office in the district of business. This includes individuals, corporations (including the state, local authorities, and association of local authorities) and any bodies of persons, foundations or any other organisations. Separate registration is required for each type of business. Voluntary registration is permitted.

- Indonesia	The VAT is extended to cover all deliveries of taxable goods carried out in the customs area by wholesalers or retailers in the course of business. All importers, manufacturers, real estate dealers, and distributors with annual turnover above 60 million Rupiah and who are independently engaged in the supply of gods and services, regardless of whether or not the supply is made to earn profit, are required to register for VAT. VAT also applies to governmental bodies engaged in commercial activities.
- Philippines	All persons whose sales of taxable goods and services exceed 200,000 Pesos annually are required to register for VAT regardless of whether or not the supply is made for profit. Voluntary registration is permitted, with conditions.
- Taiwan	Any profit-seeking enterprise which is privately owned, owned by the government or jointly owned by the government and a private entity, any non-profit seeking enterprise, institute, organisation or association which sells goods and services, and has a permanent business establishment within the territory of the Taiwan is required to register for VAT. However, foreign enterprises, organisations, institutes or associations which have no permanent business establishment within the country are required to appoint a local agent, and the local agent is treated as a VAT taxpayer.
- Fiji	Every person who carries on any taxable activity independently for the supply of goods and services regardless of whether or not the supply is made for profit purposes is a taxable person under the VAT regime. Groups and voluntary registration are permitted.

African and Latin American countries

- Kenya	Anyone whose activity consists in effecting the supply of goods and services, in a regular and independent manner, with or without a profit motive is considered a taxable person and is required to be registered with the tax authorities.
- Guatemala	Anyone who is independently engaged in the supply of goods and services regardless of whether or not the supply is made for profit purposes needs to register for VAT purposes.
- Argentina	The 1974 VAT system was revised in 1992. In the new VAT set-up, the scope and coverage of the tax has been changed substantially. Information on the new system is not available.
- Uruguay	Information not available.
- Morocco	Information not available.
- Mexico	The VAT is levied on individuals, legal entities and economic units independently engaged in the supply of goods and services, regardless of whether or not the supply is made for profit purposes, and that entity is liable for VAT registration.

Sources: Belgium Information and Documentation Institute, 1979. *VAT in Belgium*, Brussels: Government Printers.
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Appendix 5.2 Record-keeping under value-added tax - selected countries

OECD countries

- Belgium	A number of account books and documents such as invoices, journals for the entry of the day-to-day transactions, annual inventory registration records and maintenance of assets and liabilities records are necessary for all VAT registered persons. Maintenance of records for all incoming and outgoing invoices is compulsory. Each VAT registered business is required to keep records for five years.
- Denmark	Registered taxpayer purchases and sales of taxable goods and services must be recorded in accounts which can serve as a basis for the calculation and control of the VAT system for each taxation period. Both registered enterprises and exempt enterprises must retain books and records including details of invoices with invoice copies for five years.
- Netherlands	Entrepreneurs are obliged to keep a number of account books and documents such as invoices, journals for the entry of the day-to-day transactions, annual inventory registration records and maintenance of assets and liabilities records and this is necessary for all VAT registered persons. Each VAT registered business is required to keep records for ten years.
- France	Entrepreneurs who are subject to VAT must keep adequate accounting books to justify all their transactions. Maintenance of records for all incoming and outgoing invoices is compulsory.
- Italy	Maintenance of a number of account books and documents by all VAT registered persons is necessary. Maintenance of records for all incoming and outgoing invoices is compulsory. Records of all supply invoices must be accounted for in a specific book. Similarly, invoices received from suppliers must be recorded in another book. Transactions without invoices must be recorded in another book. These books must be "validated" by a VAT officer or a public notary.
- Luxembourg	An entrepreneur is obliged to keep accounts in sufficient detail to permit application of the VAT and inspection by the tax authority. The records must be kept for ten years.
- Norway	A VAT registered person is required to organise his/her book-keeping in such a manner that the VAT authorities may at any time check records.
- New Zealand	A number of account books and documents such as invoices, journals for the entry of the day-to-day transactions, annual inventory registration records and maintenance of assets and liabilities records are necessary for all VAT registered persons. Maintenance of records for all incoming and outgoing invoices is compulsory. Each VAT registered business is required to keep records for ten years.
- Sweden	A number of account books and documents such as invoices, journals for the entry of the day-to-day transactions, annual inventory registration records and maintenance of assets and liabilities records are necessary for all VAT registered persons. Maintenance of records for all incoming and outgoing invoices is compulsory. Each VAT registered business is required to keep records for ten years. If no books and records are kept as per requirements, a severe penalty is likely to be imposed.

- Germany	Has strict book-keeping requirements. An entrepreneur who supplies goods and services is obliged to keep adequate records for the purpose of determining the tax and basis of its computation. Maintenance of records for all incoming and outgoing invoices is compulsory. Each VAT registered business is required to keep records for six years. Small entrepreneurs may keep simplified records.
- United Kingdom	A number of account books and documents such as invoices, journals for the entry of the day-to-day transactions, annual inventory registration records and maintenance of assets and liabilities records is necessary for all VAT registered persons. Maintenance of records for all incoming and outgoing invoices is compulsory. Each VAT registered business is required to keep records for six years.
- Turkey	Taxable persons are obliged to keep records in such a way as to enable computation and control of the VAT. Small entrepreneurs and small farmers under the special regime in VAT Law are required to maintain simple account documents related to their purchases and business expenses.
Asian and Pacific countries	
- South Korea	A VAT registered trader must keep books of accounts where purchases and sales of goods and services must be recorded. Uniform invoices are used and maintenance of records for all incoming and outgoing invoices is compulsory. Each VAT registered business is required to keep records for five years.
- Indonesia	Every taxable firm is required to record the total price of all purchases and deliveries of taxable goods and services in the books of the firm. Account records must fully and clearly include goods and services not subject to tax or zero-rated. . Maintenance of records for all incoming and outgoing invoices is compulsory. Each VAT registered business is required to keep records for five years.
- Philippines	Maintenance of a number of account books and documents is necessary in the format laid down by the government. In addition to the normal accounting requirements, all VAT-registered persons are required to keep control subsidiary sales and purchases journals in the place of business. The Bureau of Internal Revenue checks the accounting system and ensures that the taxpayer maintains the needed records properly, in line with tax office requirements. Account books and documents such as invoices and maintenance of assets and liabilities records are necessary for all VAT registered persons. Each VAT registered business is required to keep records for three years.
- Taiwan	A number of account books and documents such as invoices, journals for the entry of the day-to-day transactions, annual inventory registration records and maintenance of assets and liabilities records is necessary for all VAT registered persons. Maintenance of records for all incoming and outgoing invoices is compulsory. The tax authority may give approval to business entities to use cash registers, to issue uniform invoices or to use the receipts from a cash register as a substitute for issuing uniform invoices.
- Fiji	It is necessary for all VAT registered business entities to the keep records of tax invoices with other accounting records for at least seven years, and make them available to Inland Revenue auditors, as and when required.
African and Latin American countries	
- Kenya	Information not available.
- Guatemala	Information not available.
- Argentina	Information not available.
- Uruguay	Information not available.

- Morocco	Information not available.
- Mexico	Registered VAT taxpayers must keep accounting books and records as stipulated in the VAT regulation. A special records-keeping regime is applicable to individuals. Small taxpayers are permitted to keep simplified records covering only those transactions specified by the tax office. The small taxpayers are exempt from submitting monthly tax returns.

Sources: As per Appendix 5.1.

Appendix 5.3 **Tax refund procedure under value-added tax - selected countries**

OECD countries

- Belgium	Right of deduction of input tax is immediate (except for motor cars). The input tax during a tax period, including tax on investment can be credited when the tax due for the period is calculated. 50 per cent of the VAT on motor cars can be reclaimed and VAT incurred on certain specified goods and services such as entertainment expenses, alcoholic beverages and so on is non-deductible. A refund must be made within six months. Tax invoices are necessary for any input tax refund claims.
- Denmark	The right of deduction for input tax is full and immediate, including investment. Enterprises selling taxable and non-taxable services are entitled to a partial deduction on a pro-rata basis. Tax invoices are necessary for any input tax refund claims.
- Netherlands	Full input tax credits are generally available to registered taxpayers for all tax paid on purchases that reflect exclusively commercial activity on a period-by-period basis. Tax invoices are necessary for any input tax refund claims.
- France	The right to deduct input tax is based on the possession of invoices. A distinction is made between capital assets and other expenses. Refunds on expenses are recoverable after the deferment of one calender month. Tax invoices are necessary for any input tax refund claims.
- Italy	Taxable persons have the right to deduct input tax from the output tax. VAT is not recoverable on a number of expenses; i.e. VAT at the increased rate of 38 per cent is not deductible, unless the activity relates to the trade or manufacturing of such goods.
- Luxembourg	Generally, VAT paid on goods and services by an entrepreneur within the course of business is recoverable. Any overpayment can either be claimed, or a credit can be obtained for adjustment to future tax liabilities. Tax invoices are necessary for any input tax refund claims.
- Norway	Full input tax credits are generally available to VAT registered entrepreneurs for all the tax paid on purchases for taxable business. This reflects exclusively commercial activity on a period-by-period basis. Tax invoices are necessary for any input tax refund claims.
- New Zealand	VAT registration enables a business to reclaim input tax from the taxable supplies of goods and services. Tax invoices are necessary for any input tax refund claims.
- Sweden	A VAT registered person can claim a deduction in his/her tax return for tax paid on inputs for business. Tax invoices are necessary for any input tax refund claims.
- Germany	Full input tax credits are generally available to registered taxpayers for all tax paid on purchases that exclusively reflect commercial activity on a period by period basis. Tax invoices are necessary for any input tax refund claims.

- United Kingdom — The person to whom the supply is made is entitled to claim input tax deductions. Excess tax paid normally is repaid within 14 days of the submission of tax refund application or VAT returns. Tax invoices are necessary for any input tax refund claims. input tax refund claims.

- Turkey — The claim for tax credit is made on the basis of periodic tax returns. The excess tax paid by the taxpayer is carried forward to the following period(s) and is not refunded, except tax credits for basic food-stuffs.

Asian and Pacific countries

- South Korea — Self-assessed system of input tax refund. The taxpayer computes the VAT by deducting the input tax on purchases of goods or services, or on the importation of goods to be used in business from the output tax. The excess tax paid is refundable or can be claimed as a tax credit. Tax invoices are necessary for any input tax refund claims.

- Indonesia — Input tax in a tax period may be credited against the output tax. If, in a tax period, input tax exceeds output tax, the excess refund is first adjusted against other taxes due. However, on the written request of the taxable entrepreneur, the excess tax payment can be reimbursed within the stipulated time. An excess of tax payment on exported goods is reimbursed within one month. Tax invoices are necessary for any input tax refund claims.

- Philippines — A VAT registered business engaged in taxable transactions can deduct full input tax from the output tax. If, at the end of any taxable quarter, the input tax exceeds the output tax, the excess tax will be carried over to the succeeding quarters, or can be credited against other internal revenue taxes.

- Taiwan — Full input tax credits are generally available to VAT registered taxpayers. However, the input tax cannot be claimed if invoices or receipts for goods and services purchased are not maintained according to the prescribed regulations. The business entity which sells goods and services is required to issue a uniform invoice. The business may apply to the Ministry of Finance for approval for the sales amount over-paid to be refunded. The over-paid tax can be refunded after verification by the tax authority.

- Fiji — The input tax incurred for making taxable supplies is deductible in full for VAT registered taxpayers. Tax invoices are necessary for any input tax refund claims.

African and Latin American countries

- Kenya — Full input tax credits are generally available to VAT registered taxpayers for all the tax paid on purchases that exclusively reflect commercial activity on a period by period basis. The input tax in excess of the output tax is refundable. For refund claims, tax invoices are necessary.

- Guatemala — Information not available.

- Argentina — Information not available.

- Uruguay	Information not available.
- Morocco	Information not available.
- Mexico	Input tax paid by the VAT registered business entrepreneurs on their purchases is fully deductible from the output tax. Excess tax is refunded or adjusted from the following period's tax liability.

Sources: As per Appendix 5.1.

Appendix 5.4 **Value-added tax treatment of small business, farmers, banking and other financial services – selected countries**

	Small business	Farmers	Banking services	Insurance services
OECD countries				
- Belgium	Small entrepreneurs normally located in retail businesses are taxed at a fixed VAT rate.	Farmers have a special regime. When they are supplying services or goods, they need not apply for VAT formalities. However, a taxable person who supplies farmers must refund to the farmer the VAT amount included in the VAT price.	Exempt	Exempt
- Denmark	Small enterprises selling goods and taxable services up to an amount of DK10,000 a year are not liable to pay VAT or to be registered.	Enterprises registered as farming, fishing and related activities submit VAT returns twice a year. Tax for each six month period is paid in two equal instalments.	Exempt (however, hiring of bank lockers, safe keeping and management shares are taxable).	Exempt
- Netherlands	Small entrepreneurs whose annual turnover is less than Dfl 4,150 are exempt from VAT.	Totally exempt from VAT. They are not entitled to input credit tax. However, in certain cases, some portion of the VAT tax paid is refundable.	Exempt	Exempt
- France	Business below FFr70,000 is exempt from VAT. Business less than FFr50,000 (supplies of goods) or less than FFr150,000 (supplies of services) is taxed under simplified method.	The term *farmer* includes all the activities relating to agricultural as well as livestock production. Farmers are subject to VAT if their average 2 year income is greater than FFr300,000. They are not liable to a VAT refund, but in some cases a refund is allowable.	Generally exempt, but in certain cases conditions apply.	Exempt

- Italy	Business whose total supplies do not exceed 360 million Lire in a calendar year, are exempt from VAT. They are, however, entitled to simpler formalities to issue invoices and records. Pay VAT quarterly instead of on a monthly basis.	Taxed at reduced rates. Agricultural producers with supplies less than 10 million Lire are excluded from the VAT formalities.	Exempt	Exempt
- Luxembourg	Entrepreneurs whose annual turnover is less than Flux200,000 are subject to VAT. Small tax reductions are given to other small entrepreneurs whose annual turnover is less than Flux1,000,000.	Agricultural and forestry enterprises are excluded entirely from VAT. They cannot claim credit or input tax. However, they can register voluntarily.	Most of the financial sector activities are exempt. However, in most cases conditions apply. In some cases input VAT may be claimed.	Generally exempt, but in most cases conditions apply. In some cases input VAT may be claimed.
- Norway	Any business less than NKR12,000 need not be registered and is exempt form VAT. Voluntary registration is not permitted to these enterprises.	On the fisherman's sales of raw fish, a lower VAT rate is charged. The fisherman is required to submit annual VAT returns, and tax assessed should be paid within three months. Returns which show an excess of input tax are refunded.	Exempt	Exempt
- New Zealand	Registration of small business below NZ$24,000 annual taxable transactions is optional.	Same treatment as for small businesses.	Exempt (other than consultancy services provided by the financial institutions).	Exempt
- Sweden	Registration of small business below SEK200,000 annual taxable transactions is optional.	Any farmer above small business threshold is taxable.	Exempt	Exempt

- Germany	Small entrepreneurs whose turnover *plus* tax during the current calender year is not expected to exceed DM100,000, are exempt during the current calender year. They are not obliged to keep books and prepare regular financial statements based on annual inventory.	A special tax treatment with reduced rates applies to certain transactions. Often these supplies are taxed at zero-rates. System of deductions effectively exempts farmers from VAT.	Exempt	Exempt
- United Kingdom	Businesses with less than 35,000 Pounds annual turnover are exempt from VAT, but can apply for VAT voluntarily.	Farm products zero-rated. However, VAT registration is compulsory if sales exceed the small business threshold level.	Exempt	Exempt
- Turkey	Certain small retailers come under compensatory taxation. Such retailers are not required to register for VAT. They are taxed on "Lump Sum Yearly Basis of VAT".	Small farmers who are either exempt from income tax or taxed under the special regime in the individual income tax law, are exempt from VAT. Big agriculturists are subject to VAT in accordance with the general rules.	Exempt	Exempt (however, services rendered by banks, bankers and insurance companies are subject to a banking and insurance transaction tax).
Asian and Pacific countries				
- South Korea	Businesses less than 24 million Won or 6 million Won for proxy agents are treated as special VAT taxpayers. They are liable for 2 per cent tax (3.5 per cent for proxies). Small firms are allowed a credit of 5 per cent of their input tax against their output tax.	A special provision is followed for VAT-registered traders using agricultural, marine or forest products, or other VAT exempt goods for inputs on a pro-rata basis by multiplying exempt rate materials by 5/105.	Exempt	Exempt

- Indonesia	Business firms with less than 120 million Rupiah annual turnover from taxable goods, or less than 60 million Rupiah from taxable services, or with capital investment of 10 million or less are exempt from VAT.	The production and delivery of unprocessed agricultural goods is exempt from VAT.	Exempt	Exempt
- Philippines	A gross receipt tax for business less than 200,000 Pesos in gross sales in 12 months is applicable. The business pays VAT at the rate of two per cent.	The production and delivery of unprocessed agricultural goods, such as agricultural and marine food products, livestock and poultry, are exempt from VAT.	Exempt	Exempt
- Taiwan	Small business entities below a prescribed threshold level pay VAT at the rate of one per cent.	The agricultural, forest, ranch, and fisheries products are exempt from VAT.	Exempt (conditions apply)	Exempt (provided that this does not include income and other benefits and return on termination of life insurance).
- Fiji	Small businesses with annual revenues from taxable goods and services of Fiji $10,000 or less (or $20,000 if dealing solely in goods) do not have to register and are exempt from VAT.	The supply of sugar cane is zero-rated.	Exempt	Exempt
African and Latin American countries				
- Kenya	Information not available.			
- Guatemala	Information not available.			
- Argentina	Information not available.			
- Uruguay	Information not available.			
- Morocco	Information not available.			
- Mexico	Special regime is only applicable to individuals.	Small farmers are exempt.	Exempt (conditions apply)	Exempt.

Sources: As per Appendix 5.1.

Appendix 5.5 **Right of appeals under value-added tax - selected countries**

OECD countries	
- Belgium	Any disputes over VAT ruling can be settled by the ordinary courts. There are not specific courts.
- Denmark	VAT appeals are heard by independent VAT Tribunals in the first instance, but may then proceed to the judiciary.
- Netherlands	VAT disputes are discussed and reviewed by the local tax office. Appeals can be made to the Court of Appeal (Tax Courts), in case the dispute is not settled at the local tax office and can further proceed to the Supreme (Tax) Court.
- France	VAT appeals can be made in administrative courts, which are totally independent. A final appeal can be made to the Supreme Court.
- Italy	Appeals in the first instance are heard by the Independent tax tribunals. If not settled at this stage, can proceed to the Central Tax Commission and the Supreme Court.
- Luxembourg	An appeal against an assessment of tax must be made within 90 days of receipts of the notice of assessment. Further appeals can be made to the District Court and the Supreme Court.
- Norway	Information not available.
- New Zealand	VAT appeals in the first place are reviewed by the Commissioner, Internal Revenue Department, then by the Taxation Review Authority and finally by the High Court.
- Sweden	VAT appeals can be made to the Country Fiscal Court of Appeal and then to the Fiscal Court of Appeal. Verdicts of the junior courts can be appealed to the Supreme Administrative Court.
- Germany	A taxpayer may lodge an appeal against an assessment with the fiscal office within one month of receipt of the notice of assessment. There is a right of further appeal to the finance court in the first instance, which can further be lodged with the Federal Finance Court and may further be processed to the Federal Constitutional Court.
- United Kingdom	Independent VAT Tribunals hear VAT appeals in the first instance, then the High Court and finally the Court of Appeal and House of Lords.
- Turkey	A taxpayer may lodge an appeal against an assessment or a penalty to a tax court within 30 days after notification of the tax or penalty. A further appeal can be made before the Regional Administrative Court and the Supreme judicial authority in tax jurisdiction in the Council of State.
Asian and Pacific countries	
- South Korea	Information not available.
- Indonesia	The right of appeal to submit objection and appeal to the Tax Appeal Council is protected under the Law on the general provision and procedures.
- Philippines	Right of appeal of initial tax assessment is available and can be lodged with higher judicial courts.
- Taiwan	Information not available.
- Fiji	Any VAT registered taxpayer dissatisfied with an assessment may within twenty eight days lodge an appeal with the Commissioner Inland Revenue. If not satisfied with the Commissioner's review of appeal, an appeal can be made to the Value-Added Tax Tribunal and afterwards to the High Court.

African and Latin American countries

- Kenya	Information not available.
- Guatemala	Information not available.
- Argentina	Information not available.
- Uruguay	Information not available.
- Morocco	Information not available.
- Mexico	Information not available.

Sources: As per Appendix 5.1.

Appendix 5.6 **Value-added tax administrative establishment – selected countries**

OECD countries

- Belgium	VAT is administered by the Customs and Excise. VAT taxpayers with a permanent establishment come under the VAT control authority for the area in which their establishment is located. VAT taxpayers without a permanent establishment come under the central VAT office (mostly foreigners).
- Denmark	VAT is administered by the Customs and Excise authorities. Day-to-day administration is handled by 30 regional branches of the Customs and Excise Authority's regional offices.
- Netherlands	The VAT is administered by the Customs and Excise and some specialised VAT offices.
- France	VAT on domestic goods and services is administered by the *Directorate General des Imports*, and VAT on imports by the Custom Authorities.
- Italy	VAT on domestic goods and services is administrated by separate VAT offices, located in each Italian Province, under the Ministry of Finance, while VAT on imported goods and services is administered by the Customs Department.
- Luxembourg	VAT is administered by the "*Administration de l' Emregistrement et des Domaines*".
- Norway	VAT on domestic goods and services is administrated by the regional county Inspector of Taxes, while VAT on imported goods and services is collected by the Customs Department.
- New Zealand	GST on domestic goods and services is administrated by the Inland Revenue Department and GST on imported goods and services is collected by the Customs Department.
- Sweden	VAT on domestic goods and services is administrated by the regional tax authority, one in every county. VAT on imported goods and services is administered by the Customs Department.
- Germany	VAT is collected by the Tax Authority which is also responsible for collecting all direct and indirect taxes.
- United Kingdom	VAT is administered by the Customs and Excise department.
- Turkey	VAT on domestic goods and services is administered by the Local Tax Office, and on imports by the Customs Authorities.

Asian and Pacific countries

- South Korea	VAT is administered by the National Tax Administration and Special Excise Division in the Head and Regional offices. In the District Offices a VAT section has been added in the tax administrative structure. The national Tax Administration is in overall charge of VAT implementation in the country.
- Indonesia	The VAT is administered by the Directorate General of Taxation. A separate body under the Head Office has been established with the name of Directorate of VAT for VAT administration.
- Philippines	Bureau of Internal Revenue is in overall charge of the implementation of the VAT. A VAT Division within the Bureau at district, regional and national levels has been established. VAT on imports is collected by the Bureau of Customs.
- Taiwan	Information not available.
- Fiji	VAT on domestic goods and services is collected by the Inland Revenue Department and on imports by the Customs Department in the same manner as customs duty.

African and Latin American countries

- Kenya	Information not available
- Guatemala	Information not available
- Argentina	Information not available
- Uruguay	Information not available
- Morocco	Information not available
- Mexico	Information not available

Sources: As per Appendix 5.1.

Appendix 5.7 **Value-added tax revenue (as percentage of consolidated central government tax revenue, taxes on domestic goods and services; total private consumption, and GDP) – Selected Countries**

	Date of VAT introduction	VAT revenue as percentage of (one year after the VAT introduction)				VAT revenue as percentage of (in 1991)			
		Tax revenue	Domestic goods and services tax	Private consumption	GDP (market prices)	Tax revenue	Domestic goods and services tax	Private consumption	GDP (market prices)
OECD Countries									
- Belgium	Jan. 1971	19.7	65.5	11.1	6.7	16.9	67.7	11.6	7.3
- Denmark	July 1967	18.7	44.1	11.5	6.8	26.9	56.3	17.1	8.9
- Netherlands	Jan. 1969	14.7	53.2	9.5	5.5	16.1	70.1	12.3	7.3
- France	Jan. 1968	25.9	69.1	16.1	9.8	20.1	68.8	12.7	7.6
- Italy	Jan. 1973	17.8	53.0	7.1	4.3	15.4	48.5	9.8	5.9
- Luxembourg	Jan. 1970	20.0	95.0	12.4	6.8	15.1	60.2	12.2	7.0
- Norway	Jan. 1970	22.9	54.4	18.0	9.7	23.0	50.1	16.1	8.2
- New Zealand	Oct. 1986	17.5	57.6	10.2	6.1	18.9	64.8	9.8	6.3
- Sweden	Jan. 1969	10.3	36.6	7.7	4.1	22.8	63.9	15.5	8.4
- Germany	Jan. 1968	16.0	52.2	10.2	5.6	17.6	60.3	9.4	5.1
- United Kingdom	Apr. 1973	10.0	60.5	4.8	3.1	19.7	58.4	10.4	6.6
- Turkey	Jan. 1985	19.6	54.0	4.5	3.0	29.0	73.3	9.1	4.7
Asian and Pacific Countries									
- South Korea	July 1977	22.7	47.9	5.7	3.4	25.6	69.0	7.5	4.0
- Indonesia	Apr. 1985	19.3	58.4	4.6	2.8	22.8	80.1	7.1	3.9
- Philippines	Jan. 1988	8.2	22.7	1.6	1.1	9.9	32.8	2.0	1.5
- Taiwan	Apr. 1986	13.5	54.5	4.0	1.9	15.3	58.8	4.8	2.6
- Fiji	July 1992	31.4	74.7	10.0	7.5	..	..	..	..
African and Latin American Countries									
- Kenya	Jan. 1990	41.7	77.8	14.1	8.9	41.7	77.8	14.1	8.9
- Guatemala	Aug. 1983	17.8	41.4	1.1	0.9	14.3	50.7	1.3	1.1
- Argentina	Jan. 1975	9.7	40.3	1.8	1.1	7.4	43.0	1.1	0.7
- Uruguay	Jan. 1968	14.1	33.9	2.3	1.7	23.1	62.9	9.1	6.4
- Morocco	Apr. 1986	24.8	48.2	7.3	5.2	24.6	56.9	8.1	5.8
- Mexico	Jan. 1980	20.8	61.4	4.4	2.8	22.4	36.9	4.1	2.9

Sources: Central Bank of Kenya. 1992. *Quarterly Economic Review* , 25 (2), Nairobi: Central Bank.
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Appendix 5.8 **Consumer prices – selected countries** (percentage change from previous year)

	Date of VAT introduction	One Year before VAT introduction	Year of VAT introduction	One year after VAT introduction	Five years after VAT introduction	Consumer prices in 1991
OECD countries						
- Belgium	Jan. 1971	3.9	4.3	5.4	9.2	3.2
- Denmark	July 1967	7.1	8.2	8.0	6.6	2.4
- Netherlands	Jan. 1969	3.7	7.4	3.7	9.6	3.7
- France	Jan. 1968	2.8	4.6	6.1	7.3	3.2
- Italy	Jan. 1973	5.8	10.8	19.1	12.4	6.5
- Luxembourg	Jan. 1970	2.3	4.6	4.7	10.7	3.1
- Norway	Jan. 1970	3.1	10.6	6.3	11.7	3.4
- New Zealand	Oct. 1986	15.4	13.3	15.7	2.6	2.6
- Sweden	Jan. 1969	1.9	2.7	7.0	9.9	9.3
- Germany	Jan. 1968	1.6	1.6	1.9	7.0	3.5
- United Kingdom	Apr. 1973	7.1	9.2	15.9	8.3	5.9
- Turkey	Jan. 1985	48.4	45.0	34.6	60.3	66.0
Asian and Pacific countries						
- South Korea	July 1977	15.3	10.2	14.5	7.2	9.7
- Indonesia	Apr. 1985	10.5	4.7	5.9	7.5	9.2
- Philippines	Jan. 1988	8.8	12.2	14.1	8.9	18.7
- Taiwan	Apr. 1986	0.0	0.7	1.2	3.6	3.6
- Fiji	July 1992	6.5	4.9	..	6.5	6.5
African and Latin American countries						
- Kenya	Jan. 1990	12.9	15.6	19.8	..	15.6
- Guatemala	Aug. 1983	0.3	4.5	3.4	10.8	33.2
- Argentina	Jan. 1975	23.5	182.9	444.0	100.8	171.7
- Uruguay	Jan. 1968	89.3	125.3	21.0	97.0	102.0
- Morocco	Apr. 1986	7.7	8.7	2.7	8.0	8.0
- Mexico	Jan. 1980	18.2	26.4	27.9	57.7	22.7

Notes: ..Information not available.

Sources: Asia Pacific Economics Group, 1993. *Asia-Pacific Profiles 1993*, Canberra: The Australian National University.
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Appendix 5.9 **Real gross domestic growth rate – selected countries**

	Date of VAT introduction	Percentage change from previous period: One year before VAT introduction	One year after VAT introduction	Five years after VAT introduction	Growth rates in 1991
OECD countries					
- Belgium	Jan. 1971	6.5	5.5	5.8	3.2
- Denmark	July 1967	2.2	3.8	5.4	1.0
- Netherlands	Jan. 1969	6.5	5.7	4.0	2.1
- France	Jan. 1968	4.7	7.0	5.4	0.8
- Italy	Jan. 1973	4.3	-2.7	3.6	1.2
- Luxembourg	Jan. 1970	11.0	2.7	-6.6	3.1
- Norway	Jan. 1970	3.6	4.6	4.2	1.6
- New Zealand	Oct. 1986	-1.1	-1.7	-3.3	-3.3
- Sweden	Jan. 1969	3.6	6.6	3.2	-1.1
- Germany	Jan. 1968	-0.2	7.6	4.8	4.5
- United Kingdom	Apr. 1973	3.5	-1.7	3.5	-2.2
- Turkey	Jan. 1985	5.9	8.1	9.2	5.9
Asian and Pacific countries					
- South Korea	July 1977	12.9	9.7	7.3	8.5
- Indonesia	Apr. 1985	7.0	5.9	7.1	6.6
- Philippines	Jan. 1988	4.8	6.0	..	-0.7
- Taiwan	Apr. 1986	5.0	7.3	7.2	7.2
- Fiji	July 1992	-0.1	1.9	..	-0.1
African and Latin American countries					
- Kenya	Jan. 1990	5.5	4.4	..	3.6
- Guatemala	Aug. 1983	-3.5	0.5	3.9	3.2
- Argentina	Jan. 1975	6.3	-0.2	1.6	8.9
- Uruguay	Jan. 1968	-3.9	6.1	0.4	2.9
- Morocco	Apr. 1986	6.3	0.2	5.1	5.1
- Mexico	Jan. 1980	9.2	7.9	2.6	3.6

Notes: ..Information not available.

Sources: Asia Pacific Economics Group 1993. *Asia-Pacific Profiles 1993*, Canberra: The Australian National University:Table 62:110.

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United Nations, 1992. *National Accounts Statistics–Main Aggregates and Detailed Tables 1990*, Part I and Part II, New York: United Nations.

World Bank, 1989b. *World Tables 1988-89*, Baltimore: The Johns Hopkins University Press.

Appendix 5.10 **National savings (as percentage of GDP) – selected countries**

	Date of VAT introduction	One year before VAT introduction	One year after VAT introduction	Five years after VAT introduction	National savings in 1991
OECD countries					
- Belgium	Jan. 1971	27.1	24.9	22.5	21.1
- Denmark	July 1967	22.9	22.3	24.5	17.4
- Netherlands	Jan. 1969	22.3	21.8	27.1	24.7
- France	Jan. 1968	25.7	25.0	27.8	20.7
- Italy	Jan. 1973	22.0	21.9	26.3	18.6
- Luxembourg	Jan. 1970	38.8	36.6	35.1	59.4
- Norway	Jan. 1970	25.8	27.5	27.0	23.6
- New Zealand	Oct. 1986	17.9	19.2	16.2	16.2
- Sweden	Jan. 1969	23.8	24.8	22.8	16.0
- Germany	Jan. 1968	25.2	27.6	26.5	23.1
- United Kingdom	Apr. 1973	18.5	15.3	18.4	13.5
- Turkey	Jan. 1985	15.3	22.6	23.1	21.2
Asian and Pacific countries					
- South Korea	July 1977	23.4	28.1	22.5	37.0
- Indonesia	Apr. 1985	25.1	23.3	32.8	..
- Philippines	Jan. 1988	17.8	19.4	..	17.0
- Taiwan	Apr. 1986	33.6	38.5	29.5	29.5
- Fiji	July 1992	..	..	..	..
African and Latin American countries					
- Kenya	Jan. 1990	17.2	19.4	..	19.4
- Guatemala	Aug. 1983	9.6	7.6	7.4	7.2
- Argentina	Jan. 1975	20.1	30.0	18.9	10.2
- Uruguay	Jan. 1968	13.5	10.8	12.7	15.6
- Morocco	Apr. 1986	17.6	21.0	23.6	23.6
- Mexico	Jan. 1980	18.9	20.8	21.6	16.9

Notes: ..information not available.

Sources: OECD, 1985. *OECD Economic Outlook No. 37*, Paris: OECD:Table R4.
OECD, 1990. *OECD Economic Outlook NO. 47*, Paris: OECD:Table R13.
OECD, 1993b. *OECD Economic Outlook No. 53*, Paris: OECD:Table R 13.
Republic of Kenya, 1993. *Economic Survey 1993*, Central Bureau of Statistics, Nairobi: Ministry of Planning and National Development.
World Bank, 1989b. *World Tables 1988-89*, Baltimore: The Johns Hopkins University Press.
World Bank, 1992a. *World Tables 1992*, Baltimore: The Johns Hopkins University Press.

Appendix 5.11 **Gross fixed capital formation (as percentage of GDP) – selected countries**

	Date of VAT introduction	One year before VAT introduction	One year after VAT introduction	Five year after VAT introduction	GFCF[1] in 1991
OECD countries					
- Belgium	Jan. 1971	22.5	20.9	21.5	19.7
- Denmark	July 1967	24.1	23.4	24.6	16.9
- Netherlands	Jan. 1969	26.7	25.9	22.0	20.8
- France	Jan. 1968	23.8	23.4	23.5	20.9
- Italy	Jan. 1973	23.1	25.9	22.7	19.8
- Luxembourg	Jan. 1970	21.9	28.3	27.8	25.2
- Norway	Jan. 1970	24.4	29.7	34.2	18.5
- New Zealand	Oct. 1986	25.8	21.5	16.4	16.4
- Sweden	Jan. 1969	23.7	22.1	21.6	19.3
- Germany	Jan. 1968	23.1	23.2	23.9	21.6
- United Kingdom	Apr. 1973	18.4	20.9	18.5	16.7
- Turkey	Jan. 1985				
Asian and Pacific countries					
- South Korea	July 1977	24.0	32.5	28.4	37.8
- Indonesia	Apr. 1985	26.2	28.3	36.6	35.1
- Philippines	Jan. 1988	17.0	20.9	20.9	19.7
- Taiwan	Apr. 1986	18.8	19.2	22.2	22.2
- Fiji	July 1992	..	..	..	..
African and Latin American countries					
- Kenya	Jan. 1990	19.2	18.8	0.0	18.8
- Guatemala	Aug. 1983	15.0	9.6	13.4	11.9
- Argentina	Jan. 1975	18.4	26.9	16.4	7.4
- Uruguay	Jan. 1968	13.4	11.1	9.0	11.3
- Morocco	Apr. 1986	23.1	20.2	22.3	22.3
- Mexico	Jan. 1980	23.4	27.4	19.1	24.5

Notes: [1]GFCF = Gross Fixed Capital Formation.
..Information not available.

Sources: As per Appendix 5.8.

Appendix 5.12 **Merchandise exports f.o.b[1] (as percentage of GDP) – selected countries**

	Date of VAT introduction	One year before VAT introduction	One year after VAT introduction	Five year after VAT introduction	Exports in 1991
OECD countries					
- Belgium	Jan. 1971	35.1	35.9	45.8	55.1
- Denmark	July 1967	21.8	20.7	20.1	28.2
- Netherlands	Jan. 1969	31.2	32.5	41.0	52.2
- France	Jan. 1968	9.7	11.2	13.8	17.3
- Italy	Jan. 1973	13.4	16.0	18.2	14.7
- Luxembourg	Jan. 1970	73.1	64.7	75.3	67.1
- Norway	Jan. 1970	22.9	20.4	25.6	32.3
- New Zealand	Oct. 1986	24.7	19.7	22.5	22.5
- Sweden	Jan. 1969	18.1	20.3	27.4	23.0
- Germany	Jan. 1968	17.6	19.0	19.0	24.0
- United Kingdom	Apr. 1973	14.6	19.4	20.8	18.0
- Turkey	Jan. 1985	14.3	12.8	12.0	12.1
Asian and Pacific countries					
- South Korea	July 1977	27.0	25.3	28.0	24.5
- Indonesia	Apr. 1985	23.7	18.0	25.1	25.3
- Philippines	Jan. 1988	17.1	18.4	18.7	19.5
- Taiwan	Apr. 1986	49.0	52.6	43.1	43.1
- Fiji	July 1992	28.7	..	..	28.7
African and Latin American countries					
- Kenya	Jan. 1990	11.6	13.2	0.0	13.2
- Guatemala	Aug. 1983	13.4	12.0	13.7	13.2
- Argentina	Jan. 1975	8.5	10.3	3.8	6.3
- Uruguay	Jan. 1968	9.6	9.8	11.1	16.4
- Morocco	Apr. 1986	16.7	14.8	15.5	15.5
- Mexico	Jan. 1980	6.5	7.6	11.3	11.0

Note: [1]f.o.b = free on board.
..Information not available.

Sources: As per Appendix 5.8.

Appendix 6.1 **Field survey respondents - New Zealand, the Philippines and Pakistan at the tax policy level**

Respondent	Official position
NEW ZEALAND	
A. Inland Revenue Department, Wellington	
David Henry	Commissioner
Graham Holland	Deputy Commissioner
Bob Maleny	Deputy Commissioner
Derek Howell	Director: Human Resources and Support Services
Lenore Bamfield	Senior Tax Policy Analyst (Legislative Affairs)
Mike Nutsford	Senior Tax Policy Analyst
Martin Scott	Director: Taxpayer Services
Allan Foubister	Director: Revenue Assessment and Collection
Pol Novak	Revenue Assessment and Collection
Silvia Wilmshurst	Revenue Assessment and Collection
Fred Hutton	Manager Output Centre Porirua
Peter Joneleit	Director: Information Technology
Tony Bouzaid	Director: Taxpayer Audit
Colin Carson	Manager Compliance
Bryan Kennerely	Director: Debt and Return Management
Roz Jackson	Acting Manager: FIRST Training
Tony Lester	Manager IPT (Information Technology)
Bruce Cheeseman	Research Analyst ITP
Rob Falk	Project Director
Bev Talbot	Project Manager: Application
B. Price Waterhouse, Auckland	
J. G. Todd	Senior Partner and Consultant on New Zealand Goods and Services Tax
PHILIPPINES	
A. Department of Finance	
Ernest Leung	Secretary Finance
Professor Angel Q. Yoingco	Member, Ways and Means Committee of the Parliament and Chairman, Board of Governors, Asian Pacific Tax and Investment Research (APTIRC).
Milwida M. Guevara	Assistant Secretary Finance
B. Bureau of Internal Revenues	
Liwayway Vinzons - Chatto,	Commissioner
Victor Deoferio	Deputy Commissioner
Estelita Aguirre	Chief, VAT Division
Delia Sarmineto	Technical Assistant
Raezelle Veronica V. Havier	Revenue Officer
C. Philippine Institute for Development Studies	
Rosario Manasan	Research Fellow
D. University of Philippines	
Professor Ledivina Carino	Chairman, College of Public Administration
E. Philippine Chamber of Commerce and Industry	
Florecita P. Flores	President
F. Asian Development Bank	
Satesh, S. Jha	Chief Economist
Pradumna, B. Rana	Senior Economist

PAKISTAN

Professor Kurshid Ahmad	Senator and Director, Institute of Policy Studies
Munawar Ahmad Khan	Ex. Sindh Provincial Excise and Taxation Minister and President of Sukkur Chamber of Commerce.
Sabhia Khanum	Ex. Provincial Member of NWFP Legislative Assembly
A. G. N. Kazi	Ex. Deputy Chairman, Planning Commission
Arshad Zaman	Ex. Chief Economist , Planning Commission
Syed Shaukat Kazmi	Ex. Joint Chief Economist, Planning Commission
B. Prime Minister Secretariat	
Waqar Masood Khan	Additional Secretary, Economic and Finance Policy
C. Planning Commission	
Saeed A. Qureshi	Deputy Chairman
Fasihuddin	Chief Economist
Muhammad Khan Achagzai	Joint Chief Economist
Pervez Tahir	Chief, Policy Planning
Khalid Naeem Soofi	Chief, Projects
Aslam Sial	Chief, Fiscal and Monetary
D. Finance Division	
Mushtaq Ahmad	Economic Adviser
E. Resource Division and Central Board of Revenues	
Alvi Abdul Rahim	Member Sales Tax
Muhammad Zafarullah Khan	Member Tax Policy
Falak Sher	Collector Customs, Karachi
Mir Faud	Collector Central Excise and Sales Tax
F. Ministry of Commerce	
Aqdas Ali Kazmi	Economic Consultant
G. Economic Affairs Division	
Muhammad Mobin Ahsan	Additional Secretary
H. Tariff Commission	
Akhtar Hassan Khan	Chairman
I. Pakistan Institute of Development Economics	
Professor Syed Nawab Hyder Naqvi	Director
Sarfraz Ahmad Qureshi	Joint Director
Ashfaq Ahmad Khan	Chief Research
J. Finance Departments	
Ajaz Ahmad Kazi	Additional Secretary (Budget)
Muhammad Ayub Kazi	Additional Secretary (Development)
Masood Ahmad	Deputy Secretary (Budget)

Appendix 6.2 **Simulation model of government revenue and expenditure for budget forecasting on the basis of time series analysis**

$D_f \quad = TR - TExp$ (1)

Where:

D_f = Budget deficit or surplus

TR. =. Total government revenue

Texp =. Total government expenditure

Revenue Block

$TR \quad = T_i + N_{tr} + C_{ab}$ (2)

$T_i \quad = T_{dir} + T_{ind}$ (2.1)

The direct taxes are broken down into 2 categories:

$T_{dir} \quad = T_y + T_{otdir}$ (2.2)

$T_y \quad = f(Y_{nang} \cdot P_{nang}, D_1, D_2)$ (2.3)

Where:

Y_{nang} = Non-agricultural GDP

P_{nang} = Non-agricultural GDP price index

D_1 and D_2 = Dummy variables taking the value of 1 for 1985-87 and 1988-93 and zero otherwise[i].

$T_{otdir} \quad = f(Y_{nag} \cdot P_{nag})$ (2.4)

Where:

Y_{nag} = GNP

P_{nag} = GNP price index

Indirect taxes are broken down into eight categories:

$T_{ind} \quad = T_m + T_x + T_{exc} + T_{sal} + Sur_{dev} + T_{mv} + D_{stmp} + T_{otind}$ (2.5)

$T_m \quad = f(M_t \cdot P_{mi}, D_2)$ (2.6)

Where:

M_t = Total imports

P_{mi} = Imports price index

$T_x \quad = f(X_i \cdot P_{xi})$ (2.7)

Where:

X_i = Total exports

P_{xi} = Export price index

$T_{exc} \quad = f(Y_{manl} \cdot P_{manl}, D_1)$ (2.8)

Where:

Y_{manl} = Value-added in large scale manufacturing

P_{manl} = Large scale manufacturing price index

[i] Dummy variable D_1 is used to capture the influence of domestic socio-economic and political developments and dummy variable D_2 is used to assess the impact of worldwide recession on major components of government revenue and government expenditure during 1985-87 and 1988-93.

$T_{sal} = f(Y_{manl} \cdot P_{manl}, M_t \cdot P_{mi}, D_1, D_2)$ (2.9)

Where:

$T_{sal} = S_{dom} + S_{tm}$

$S_{dom} = f(Y_{manl} \cdot P_{manl}, D_1)$ (2.10)

Where:

Y_{manl} = Value-added in large scale manufacturing

P_{manl} = Large scale manufacturing price index

$S_{tm} = f(M_t, P_{mi} . D_1, D_2)$ (2.11)

Where:

M_t = Total imports

P_{mi} = Imports price index

$Sur_{dev} = f(Y_{manl} \cdot P_{manl})$ (2.12)

Where:

Y_{manl} = Value-added in large scale manufacturing

P_{manl} = Large scale manufacturing price index

$T_{mv} = f(Y_g . P_{gn})$ (2.13)

Where:

Y_g = GNP

P_{gn} = GNP price index

$D_{stmp} = f(Yg . Pgn)$ (2.14)

Where:

Y_g = GNP

P_{gn} = GNP price index

$T_{otind} = f(Y_g . P_{gn})$ (2.15)

Where:

Y_g = GNP

P_{gn} = GNP price index

$N_{tr} = f(Y_g . Y_{gn}, D_1)$ (2.16)

Where:

Y_g = GNP

P_{gn} = GNP price index

Expenditure Block

$Texp = Cur_{exp} + Cap_{exp}$ (3)

$Cur_{exp} = G_{lo} + D_{ef} + S_{ub} + D_{eb} + Ser_{soc} + Ser_{eco} + Ser_{com} + Cur_{oexp}$ (3.1)

$G_{lo} = f(Y_g . P_{gn}, D_1, D_2)$ (3.2)

Where:

Y_g = GNP

P_{gn} = GNP price index

$Def_{exp} = f(Y_d . P_{gd}, D_1)$ (3.3)

Where:

Y_d = GDP

P_{gn} = GDP price index

S_{ub} = $f(Y_d \,.\, P_{gd}, D_1)$ (3.4)
Where:
Y_d = GDP
P_{gd} = GDP price index

Int_{dom} = $f(Dom_{debt})$ (3.5)
Where:
Dom_{debt} = Outstanding domestic debt

Int_{ext} = $f(Et_{debt})$ (3.6)
Where:
Et_{debt} = Outstanding external debt

Ser_{soc} = $f(Y_d \,.\, P_{gd})$ (3.7)
Where:
Y_d = GDP
P_{gd} = GDP price index

Ser_{eco} = $f(Y_d \,.\, P_{gd})$ (3.8)
Where:
Y_d = GDP
P_{gd} = GDP price index

Ser_{com} = $f(Y_d \,.\, P_{gd})$ (3.9)
Where:
Y_d = GDP
P_{gd} = GDP price index
Cur_{oexp} = $f(Y_g \,.\, P_{gn}, D_1)$ (3.10)
Where:
Y_g = GNP
P_{gn} = GNP price index

Cap_{exp} = $f(Y_d \,.\, P_{gd}, D_1)$ (3.11)
Where:
Y_d = GDP
P_{gd} = GDP price index

List of variables

D_f = Budget deficit or surplus

TR = Total government revenue

TE_{xp} = Total government expenditures

Revenue block

T_y = Taxes on income and corporate profits

T_{otdir} = Other direct taxes

T_m = Import duties

T_x = Export duties

T_{exc} = Excise duties

T_{sal} = Total sales tax

S_{dom} = Sales tax on domestic production

S_{tm} = Sales tax on imports

Sur_{dev} = Development surcharges

T_{mv} = Motor vehicle tax

D_{stmp} = Stamp duties

T_{otind} = Other indirect taxes

N_{tr} = Non-tax revenue

Expenditure block

Cur_{exp} = Current expenditure

Cap_{exp} = Capital expenditure under the budget

G_{lo} = Expenditure on government administration and law and order

Def_{exp} = Expenditure on defence

S_{ub} = Subsidies (current)

Int_{dom} = Interest on domestic outstanding debt

Int_{ext} = Interest on external outstanding debt

S_{soc} = Social services

S_{eco} = Economic services

S_{com} = Community services

Cur_{oexp} = Other current expenditure

Appendix 6.3 **Estimates of final sales of exempt goods using 1986-87 data** (current million rupees except for ratios and coefficients)

Sectors	Gross output	Intermediate demand	Imports	Exports	Final demand	Taxable input ratio	Taxable inputs	Augmented base: Taxable input ratio	Augmented base: Taxable inputs
Wheat	25792	26242	1184	0	734	0.133	3430	0.178	4591
Rice	10731	7787	0	0	2944	0.152	1631	0.273	2930
Cotton	19226	25769	0	0	-6543	0.136	2615	0.162	3.115
Sugar cane	8961	8327	0	0	634	0.102	914	0.120	1075
Tobacco	981	6	11	1	985	0.080	78	0.104	102
Other crops	37270	31620	438	867	5220	0.100	3727	0.115	4286
Livestock	92964	18636	625	703	74250	0.000	0	0.057	5299
Fishing	6422	2450	0	195	3777	0.047	302	0.220	1.413
Forestry	3868	5478	140	0	-1470	0.086	333	0.173	669
Mining and quarrying	14635	9135	9003	59	14444	0.073	1068	0.080	1171
Grain milling	30311	382	1754	0	31684	0.107	3243	0.202	6123
Rice milling	12116	642	0	5053	6422	0.060	727	0.302	3659
Edible oils	28672	9619	4062	0	23115	0.364	10437	0.380	10895
Gur and Kndsari	2407	188	0	0	2219	0.003	7	0.016	39
Tea blending	4692	2740	2648	0	4601	0.099	465	0.117	549
Fish and preparations	3133	0	0	1735	1398	0.000	0	0.000	0
Ownership of dwellings	27899	0	0	0	27899	0.100	2790	0.102	2846
Television	446	0	0	0	446	0.000	0	0.000	0
Radio	725	0	0	0	725	0.000	0	0.000	0
Banking and insurance	25450	7259	0	0	18191	0.122	3105	0.150	3818
Government	97463	22037	0	0	75426	0.080	7797	0.092	8967
Services	46949	35570	0	0	11379	0.001	47	0.001	56
Road transport	82172	21371	0	0	60801	0.534	43880	0.534	43880
Rail transport	10576	1731	0	0	8845	0.659	6969	0.659	6969
Air transport	9992	0	0	0	9992	0.295	2948	0.295	2948
Water transport	1933	0	0	0	1933	0.000	0	0.000	0
Phone, telegraph and post	6198	1338	0	0	4860	0.122	756	0.122	756

Source: World Bank, 1992b. *Changes in Trade and Domestic Taxation for Reform of the Incentive Regime and Fiscal Adjustment*, Volume II, Report No. 9828-PAK, Washington, DC: World Bank: Appendix VIII.

Appendix 6.4 **Pakistan - National Accounts summary** (current billion rupees)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Gross Domestic Product (Y)	1342	1555	1776	2030	2320	2651
Resource Gap (M-X)	79	67	64	59	52	42
Imports (g+nfs) (M)	296	313	340	369	399	432
Export (g+nfs) (X)	217	246	276	310	347	390
Total expenditure	1421	1622	1841	2089	2372	2693
Consumption	1143	1310	1482	1676	1896	2144
- Private	968	1118	1269	1441	1636	1857
- Public	175	192	213	235	260	287
Investment	278	312	359	413	476	549
- Gross fixed investment	257	287	330	380	438	505
. Private	135	152	179	211	248	291
. Public	122	135	151	170	190	213
- Change in Stocks	21	25	29	33	38	45
Memorandum items:						
Domestic Savings (Sd=Y-C)	199	244	295	354	424	507
Net factor income from abroad	15	15	13	12	11	10
National Savings	214	259	308	366	435	517
Foreign Savings	64	53	51	47	41	32

Sources: Federal Bureau of Statistics, 1991b. *Pakistan Statistical Yearbook 1991*, Statistics Division, Federal Bureau of Statistics, Islamabad: Government of Pakistan.

Government of Baluchistan, *Annual Budget Documents*, Finance Department, Quetta: Government of Baluchistan (various issues).

Government of NWFP, *Annual Budget Documents*, Finance Department, Peshawar: Government of NWFP (various issues).

Government of Pakistan, 1994. *Pakistan Economic Survey 1993-94*. Ministry of Finance, Economic Adviser's Wing, Islamabad: Government of Pakistan.

Government of Pakistan, *Annual Budget Documents*, Ministry of Finance, Budget Wing, Islamabad: Government of Pakistan (various issues).

Government of the Punjab, *Annual Budget Documents*, Finance Department, Lahore: Government of the Punjab (various issues).

Government of Sindh, *Annual Budget Documents*, Finance Department, Karachi: Government of Sindh (various issues).

Pakistan - Local Councils, *Local Bodies Budget Documents*, Governments of the Punjab, Sindh, NWFP and Baluchistan (various issues selected local councils in each province).

Planning Commission, 1994. *The Eighth Five-Year Plan (1993-98)*, Planning Commission, Islamabad: Government of Pakistan.

Appendix 6.5 **Private final consumption expenditure by type and purpose during 1990-91** (current million rupees)

	1990-91 per capita rupees	All Pakistan
1. Food, beverages and tobacco	2525	287295
A. Food	2329	264994
- Cereals	484	55070
- Baked & fried products	37	4210
- Pulses, split and whole	84	9558
- Milk and milk products	604	68723
- Edible oils and fats	172	19570
- Meat and fish	199	22642
- Poultry	54	6144
- Fruits and dry fruits	102	11606
- Vegetables	250	28445
- Condiments and spices	80	9102
- Sugar and sugar preparations	181	20594
- Ready-made food products	54	6144
- Other foods	28	3186
B. Tea, coffee and soft drinks	89	10126
- Tea	68	7737
- Coffee	1	114
- Soft-drinks	20	2276
C. Tobacco and chewing products	107	12174
2. Fuel and Power	295	33565
- Fire wood	103	11719
- Kerosene oil	35	3982
- Coal	1	114
- Dung-cakes	24	2731
- Gas (piped & cylinder)	22	2503
- Electricity, including bulbs	95	10809
- Match box	6	683
- Others	9	1024
3. Clothing and footwear	404	45967
- Clothing	301	34248
- Footwear	84	9558
- Others	19	2162
4. Housing and rent	691	78622
- House rent	52	5917
- Imputed house rent	563	64058
- Other housing expenses	76	8647
5. Medical care and health	149	16953
- Medicines purchase	97	11037
- Hospital, doctor fees	50	5689
- Other medical costs	2	228
6. Recreational, entertainment, education, and cultural services	96	10923
- Educational expenses	80	9102
- Recreational expenses	16	1820
7. Transport and travelling	16	1820

	1990-91 per capita rupees	All Pakistan
8. Furniture, furnishing and household equipment and household operation	92	10468
- Kitchen equipment	14	1593
- China ware	19	2162
- Furniture	24	2731
- Laundry equipment	5	569
- Others	30	3413
9. Durable goods	29	3300
- Radio, television, VCR, refrigerator etc.	14	1593
- Recreation equipment	1	114
- Transport vehicles	14	1593
10. Other non-durable	82	9330
11. Jewellery	416	47332
12. Miscellaneous goods & services	636	72364
- Personal care articles & services	190	21618
- Personal transport	189	21504
- Housing cleaning items	79	8989
- Other items of personal care	178	20253
13. Other consumption expenditure	165	18774
Total Household Consumption Expenditure	5596	636713

Source: Federal Bureau of Statistics, 1993. *Household Integrated Economic Survey 1990-91*, Statistics Division, Federal Bureau of Statistics, Karachi: Government of Pakistan.

Appendix 7.1 **Government revenue and expenditure projections[1] under the *status quo* scenario 1993-98** (current billion rupees)

	Actual[2]	Projected					Total	Gr.Rate[3]
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1993-98	(%)
Total revenue	244.0	283.0	322.8	368.1	417.7	477.9	1869.6	14.4
Total taxes	179.9	217.5	246.9	280.1	315.8	359.8	1420.0	14.9
- Direct taxes	37.8	42.9	51.0	59.7	69.8	81.6	305.1	16.6
. Income tax	35.0	40.7	48.6	57.0	66.8	78.3	291.4	17.5
. Other	2.8	2.2	2.4	2.7	3.0	3.4	13.7	3.6
- Indirect taxes	142.1	174.6	195.9	220.4	246.0	278.1	1115.0	14.4
. Import duties	63.2	77.8	84.3	91.3	99.0	107.3	459.6	11.2
. Export duties	0.0	4.7	5.2	5.7	6.3	7.0	28.8	0.0
. Excise duties	35.5	40.4	45.7	51.8	59.8	67.7	265.4	13.7
. Sales tax	23.7	27.1	31.5	36.9	42.8	52.0	190.2	17.0
- Domestic	12.5	14.8	17.8	21.7	26.7	33.4	114.4	21.7
- Imports	11.2	12.3	13.6	15.2	16.1	18.6	75.8	10.7
. Surcharges	13.1	18.3	22.2	26.8	29.4	34.5	131.2	21.5
. Motor vehicle tax	1.3	1.6	1.8	2.0	2.2	2.5	10.0	13.7
. Stamp duties	3.0	3.2	3.6	4.0	4.5	5.0	20.2	10.8
. Other	2.3	1.6	1.7	1.9	2.0	2.2	9.5	-0.6
- Non-tax revenue[4]	64.1	65.6	75.9	88.0	101.9	118.1	449.5	13.0
Total expenditure	351.9	413.1	479.8	557.4	648.5	754.6	2853.4	16.5
- Current expenditure	265.4	313.6	366.1	427.5	500.0	584.9	2192.1	17.1
. Govt. administration[@]	31.1	36.2	42.1	49.0	57.0	66.3	250.7	16.3
. Defence	87.8	104.8	120.6	138.8	159.7	183.8	707.7	15.9
. Community services	8.2	10.0	11.7	13.6	15.9	18.5	69.7	17.6
. Social services	38.7	44.9	52.7	62.0	72.9	85.7	318.3	17.2
. Economic services	10.2	7.9	8.8	9.7	10.7	11.9	49.0	3.1
. Subsidies	7.3	9.6	10.6	11.6	12.7	13.9	58.4	13.6
. Interest payments	75.2	90.0	107.8	129.0	155.1	186.3	668.2	19.9
- Domestic	58.7	70.5	84.8	102.1	123.7	149.7	530.8	20.6
- Foreign	16.5	19.5	23.0	26.9	31.4	36.6	137.4	17.3
. Other	6.9	10.2	11.8	13.7	16.0	18.5	70.2	21.9
- Development[5]	86.5	74.3	81.1	88.5	96.6	105.4	445.9	4.0
- Development[6]	86.5	99.5	113.7	129.9	148.5	169.7	661.2	14.4
Overall deficit[7]	107.8	130.1	157.0	189.3	230.8	276.7	983.9	20.7
- Primary deficit	32.6	40.1	49.2	60.3	75.7	90.4	315.7	22.6
- Interest payments	75.2	90.0	107.8	129.0	155.1	186.3	668.2	19.9
Financing:	107.8	130.1	157.0	189.3	230.8	276.7	983.9	
- Non-bank[8]	21.0	71.0	89.5	112.2	142.6	176.0	591.3	53.0
- Bank	62.5	31.1	35.5	40.6	46.4	53.0	206.6	-3.3
- External	24.3	28.0	32.0	36.5	41.8	47.7	186.0	14.4
Memorandum items:								
GDP (market prices)[9]	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0	10332.0	14.6
Total revenue	18.2	18.2	18.2	18.1	18.0	18.0	18.1	
Total taxes	13.4	14.0	13.9	13.8	13.6	13.6	13.7	
- Direct taxes	2.8	2.8	2.9	2.9	3.0	3.1	3.0	
. Income tax	2.6	2.6	2.7	2.8	2.9	3.0	2.8	
. Other	0.2	0.1	0.1	0.1	0.1	0.1	0.1	
- Indirect taxes	10.6	11.2	11.0	10.9	10.6	10.5	10.8	
. Import duties	4.7	5.0	4.7	4.5	4.3	4.0	4.4	
. Export duties	0.0	0.3	0.3	0.3	0.3	0.3	0.3	
. Excise duties	2.6	2.6	2.6	2.6	2.6	2.6	2.6	

. Sales tax	1.8	1.7	1.8	1.8	1.8	2.0	1.8
- Domestic	0.9	1.0	1.0	1.1	1.2	1.3	1.1
- Imports	0.8	0.8	0.8	0.7	0.7	0.7	0.7
. Surcharges	1.0	1.2	1.2	1.3	1.3	1.3	1.3
. Motor vehicle tax	0.0	0.1	0.1	0.0	0.0	0.0	0.0
. Stamp duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2
. Other	0.2	0.1	0.0	0.0	0.0	0.0	0.0
- Non-tax revenue[4]	4.8	4.2	4.3	4.3	4.4	4.5	4.4
Total expenditure	26.2	26.6	27.0	27.5	28.0	28.5	27.6
- Current expenditure	19.8	20.2	20.6	21.1	21.6	22.1	21.2
. Govt. administration	2.3	2.3	2.4	2.4	2.5	2.5	2.4
. Defence	6.5	6.7	6.8	6.8	6.9	6.9	6.8
. Community services	0.6	0.6	0.7	0.7	0.7	0.7	0.7
. Social services	2.9	2.9	3.0	3.1	3.1	3.2	3.1
. Economic services	0.8	0.5	0.5	0.5	0.5	0.4	0.5
. Subsidies	0.5	0.6	0.6	0.6	0.5	0.5	0.6
. Interest payments	5.6	5.8	6.1	6.4	6.7	7.0	6.5
- Domestic	4.4	4.5	4.8	5.0	5.3	5.6	5.1
- Foreign	1.2	1.3	1.3	1.3	1.4	1.4	1.3
. Other	0.5	0.7	0.7	0.7	0.7	0.7	0.7
- Development[5]	6.4	4.8	4.6	4.4	4.2	4.0	4.3
- Development[6]	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Overall deficit[7]	8.0	8.4	8.8	9.3	9.9	10.4	9.5
- Primary deficit	2.4	2.6	2.8	3.0	3.3	3.4	3.1
- Interest payments	5.6	5.8	6.1	6.4	6.7	7.0	6.5
Financing:	8.0	8.4	8.8	9.3	9.9	10.4	9.5
- Non-bank[8]	1.5	4.6	5.0	5.5	6.1	6.6	5.7
- Bank	4.7	2.0	2.0	2.0	2.0	2.0	2.0
- External	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Notes: [1]Model forecasts.
[2]Actual budgetary accounts.
[3]Average annual growth rate for the period 1992-93 and 1997-98.
[4]Includes contribution by the public sector autonomous bodies.
[5]Model's predicted values.
[6]Development expenditure assumed at the 1992-93 level.
[7]On the basis of assumed development expenditure.
[8]Non-bank borrowing has been taken as residual of financing requirements by assuming fixed (as % of GDP) bank and external borrowing.
[9]Based on the Eighth Five-Year Plan (1993-98) GDP growth assumption.
[@]Government administration.

Sources: Appendix 2.3 and Authors' computation.

Appendix 7.2 **VAT rate structure under alternative scenarios**

	Alternative 1 VAT Rate Structure				Alternative 2 VAT Rate Structure				Alternative 3 VAT Rate Structure			
	0%	2%	15%	30%	0%	2%	15%	30%	0%	2%	15%	30%
1. Food, beverages and tobacco												
A. Food												
- Cereals			x		x					x		
- Baked and fried products			x				x			x		
- Pulses, split and whole			x		x					x		
- Milk and milk products			x				x			x		
- Edible oils and fats			x				x			x		
- Meat and fish			x				x			x		
- Poultry			x				x			x		
- Fruits and dry fruits			x		x				x			
- Vegetables			x		x				x			
- Condiments and spices			x				x				x	
- Sugar and sugar preparations			x				x			x		
- Ready-made food products			x				x				x	
- Miscellaneous food items			x				x				x	
B. Tea, coffee and soft drinks												
- Tea			x				x					x
- Coffee			x				x					x
- Soft-drinks			x				x					x
C. Tobacco and chewing products				x				x				x
2. Fuel and power												
- Fire wood			x		x				x			
- Kerosene oil			x		x				x			
- Coal			x		x					x		
- Dung-cakes			x		x				x			
- Gas (piped & cylinder)			x				x				x	
- Electricity, including bulbs			x				x				x	
- Match boxes			x				x			x		
- Other fuel and power items			x				x				x	
3. Clothing and footwear												
- Clothing			x		x					x		
- Footwear			x				x				x	
- Other			x				x				x	
4. Housing and rent												
- House rent			x		x				x			
- Imputed house rent			x		x				x			
- Other housing expenses			x				x				x	
5. Medical care and health												
- Medicine purchases			x		x				x			
- Hospital, doctor fees			x		x				x			
- Other medical costs			x		x				x			
6. Recreational, entertainment, education and cultural services												
- Educational expenses			x		x				x			
- Recreational expenses			x				x				x	
7. Transport and travelling			x		x				x			
8. Furniture, furnishing and household equipment and household operation												
- Kitchen equipment			x				x					x
- China ware			x				x					x

- Furniture	x	x	x	
- Laundry equipment	x	x	x	
- Other	x	x	x	
9. Durable goods				
- Television, VCR, refrigerator etc.,	x	x		x
- Recreation equipment	x	x		x
- Transport vehicles	x	x		x
10. Other non-durable	x	x	x	
11. Jewellery	x	x		x
12. Miscellaneous goods and services				
- Personal care articles and services	x	x	x	
- Personal transport	x	x		x
- Housing cleaning items	x	x	x	
- Other items of personal care	x	x	x	
13. Other consumption expenditure	x	x	x	

Note: x = VAT rate in specific column.
Source: Author's computation.

Appendix 7.3 **Value-added tax revenue under scenario 1[1] (current billion rupees)**

	19901-91 HIES[2]	Projected[3] 1993-94	1994-95	1995-96	1996-97	1997-98
1. Food, beverages and tobacco	43.1	69.0	78.4	89.0	101.1	114.7
A. Food	39.8	63.7	72.3	82.1	93.2	105.8
Cereals	8.3	13.2	15.0	16.9	19.1	21.1
Baked and fried products	0.6	1.0	1.1	1.3	1.5	1.6
Pulses, split and whole	1.4	2.3	2.6	2.9	3.3	3.7
Milk and milk products	10.3	16.5	18.7	21.0	23.8	26.3
Edible oils and fats	2.9	4.7	5.3	6.0	6.8	7.5
Meat and fish	3.4	5.5	6.2	7.0	7.9	8.7
Poultry	0.9	1.5	1.7	1.9	2.1	2.3
Fruits and dry fruits	1.7	2.8	3.2	3.6	4.0	4.4
Vegetables	4.3	6.8	7.7	8.7	9.8	10.9
Condiments and spices	1.4	2.2	2.5	2.8	3.1	3.5
Sugar and sugar preparations	3.1	5.0	5.6	6.3	7.1	7.9
Ready-made food products	0.9	1.5	1.7	1.9	2.1	2.3
Miscellaneous food items	0.5	0.8	0.9	1.0	1.1	1.2
B. Tea, coffee and soft drinks	1.5	2.4	2.8	3.1	3.5	3.9
Tea	1.2	1.9	2.1	2.4	2.7	2.9
Coffee	0.0	0.0	0.0	0.0	0.0	0.0
Soft-drinks	0.3	0.6	0.6	0.7	0.8	0.9
C. Tobacco and chewing products	1.8	2.9	3.3	3.7	4.2	4.7
2. Fuel and power	5.0	8.1	9.1	10.3	11.6	12.8
Fire wood	1.8	2.8	3.2	3.6	4.0	4.5
Kerosene oil	0.6	1.0	1.1	1.2	1.4	1.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0
Dung-cakes	0.4	0.6	0.7	0.8	0.9	1.0
Gas (piped & cylinder)	0.4	0.6	0.7	0.8	0.9	1.0
Electricity, including bulbs	1.6	2.6	2.9	3.3	3.7	4.1
Match boxes	0.1	0.2	0.2	0.2	0.2	0.3
Other fuel and power items	0.2	0.2	0.3	0.3	0.3	0.4
3. Clothing and footwear	6.9	11.1	12.6	14.1	15.9	17.6
Clothing	5.1	8.2	9.3	10.5	11.8	13.1
Footwear	1.4	2.3	2.6	2.9	3.3	3.7
Others	0.3	0.5	0.6	0.7	0.8	0.8
4. Housing and rent	11.8	18.9	21.4	24.1	27.2	30.0
House rent	0.9	1.4	1.6	1.8	2.0	2.3
Imputed house rent	9.6	15.4	17.5	19.6	22.2	24.5
Other housing expenses	1.3	2.1	2.3	2.6	3.0	3.3
5. Medical care and health	2.5	4.1	4.6	5.2	5.8	6.5
Medicine purchases	1.7	2.6	3.0	3.4	3.8	4.2
Hospital, doctor fees	0.9	1.4	1.6	1.7	2.0	2.2
Other medical costs	0.0	0.0	0.1	0.1	0.1	0.1
6. Recreational, entertainment, education and cultural services	1.6	2.6	3.0	3.3	3.8	4.2
Educational expenses	1.4	2.2	2.5	2.8	3.1	3.5
Recreational expenses	0.3	0.4	0.5	0.6	0.6	0.7
7. Transport and travelling	0.3	0.4	0.5	0.6	0.6	0.7
8. Furniture, furnishing and household equipment and household operation	1.6	2.5	2.9	3.2	3.6	4.0
Kitchen equipment	0.2	0.4	0.4	0.5	0.6	0.6
China ware	0.3	0.5	0.6	0.7	0.8	0.8
Furniture	0.4	0.6	0.7	0.8	0.9	1.0
Laundry equipment	0.1	0.1	0.2	0.2	0.2	0.2
Others	0.5	0.8	0.9	1.0	1.2	1.3
9. Durable goods	0.5	0.8	0.9	1.0	1.1	1.3
Radio, television, VCR, refrigerator	0.2	0.4	0.4	0.5	0.6	0.6
Recreation equipment	0.0	0.0	0.0	0.0	0.0	0.0

Transport vehicles	0.2	0.4	0.4	0.5	0.6	0.6
10. Other non-durable	1.4	2.2	2.5	2.8	3.2	3.6
11. Jewellery	7.1	11.4	12.9	14.5	16.4	18.1
12. Miscellaneous goods and services	10.9	17.4	19.8	22.2	25.0	27.7
Personal care articles and services	3.2	5.2	5.9	6.6	7.5	8.3
Personal transport	3.2	5.2	5.9	6.6	7.4	8.2
Housing cleaning items	1.4	2.2	2.5	2.8	3.1	3.4
Other items of personal care	3.0	4.9	5.5	6.2	7.0	7.8
13. Other consumption expenditure	2.8	4.5	5.1	5.8	6.5	7.2
14. Potential value-added tax revenue	95.5	153.0	173.7	196.0	221.9	248.2
15. Value-added tax revenue @80%[4]	76.4	122.4	139.0	156.8	177.5	198.6

Notes: [1]VAT revenue calculation on the basis of household consumption expenditure estimates as in appendix 6.5 and scenario 1 assumptions as in Appendix 7.2.
[2]Household Integrated Economic Survey 1990-91 estimates.
[3]Projected values are on the basis HIES consumption ratios to private consumption estimates of the eighth five-year plan.
[4]Value-added tax revenue have been assumed at 80% of the potential VAT base.

Sources: Federal Bureau of Statistics, 1993. *Household Integrated Economic Survey 1990-91*, Statistics Division, Federal Bureau of Statistics, Karachi: Government of Pakistan.
Planning Commission, 1994. *The Eighth Five-Year Plan, 1993-98*, Planning Commission, Islamabad: Government of Pakistan.

Appendix 7.4 **Government revenue and expenditure projections under scenario 1[1] 1993-98** (current billion rupees)

	Actual[2] 1992-93	1993-94	1994-95	Projected 1995-96	1996-97	1997-98	Total 1993-98	Gr.Rate[3] (%)
Total revenue	244.0	373.8	425.2	482.3	546.1	617.6	2445.0	20.4
Total taxes	179.9	308.2	349.3	394.3	444.2	499.5	1995.5	22.7
- Direct taxes	37.8	42.9	51.0	59.7	69.8	81.6	305.1	16.6
. Income tax	35.0	40.7	48.6	57.0	66.8	78.3	291.4	17.5
. Other	2.8	2.2	2.4	2.7	3.0	3.4	13.7	3.6
- Indirect taxes	142.1	265.3	298.3	334.6	374.4	417.8	1690.4	24.1
. Import duties	63.2	77.8	84.3	91.3	99.0	107.3	459.6	11.2
. Export duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
. Excise duties	35.5	40.4	45.7	51.8	59.8	67.7	265.4	13.7
. Value-added tax	23.7+	122.4	139.0	156.8	177.5	198.6	794.3	52.9
. Surcharges	13.1	18.3	22.2	26.8	29.4	34.5	131.2	21.5
. Motor vehicle tax	1.3	1.6	1.8	2.0	2.2	2.5	10.0	13.7
. Stamp duties	3.0	3.2	3.6	4.0	4.5	5.0	20.2	10.8
. Other	2.3	1.6	1.7	1.9	2.0	2.2	9.5	-0.6
- Non-tax revenue[4]	64.1	65.6	75.9	88.0	101.9	118.1	449.5	13.0
Total expenditure	351.9	401.4	453.1	512.7	581.4	660.6	2609.2	13.4
- Current expenditure	265.4	301.9	339.4	382.8	432.9	490.9	1947.9	13.1
. Govt. administration@	31.1	36.2	42.1	49.0	57.0	66.3	250.7	16.3
. Defence	87.8	104.8	120.6	138.8	159.7	183.8	707.7	15.9
. Community services	8.2	10.0	11.7	13.6	15.9	18.5	69.7	17.6
. Social services	38.7	44.9	52.7	62.0	72.9	85.7	318.3	17.2
. Economic services	10.2	10.9	11.8	12.7	13.7	14.9	64.0	7.9
. Subsidies	7.3	9.6	10.6	11.6	12.7	13.9	58.4	13.6
. Interest payments	75.2	78.2	81.1	84.3	88.0	92.3	423.9	4.2
- Domestic	58.7	59.0	59.4	60.1	61.0	62.1	301.6	1.1
- Foreign	16.5	19.2	21.7	24.2	27.0	30.2	122.3	12.9
. Other	6.9	10.2	11.8	13.7	16.0	18.5	70.2	21.9
- Development[5]	86.5	74.3	81.1	88.5	96.6	105.4	1.0	4.0
- Development[6]	86.5	99.5	113.7	129.9	148.5	169.7	661.3	14.4
Overall deficit[7]	107.9	27.6	27.9	30.4	35.3	43.0	164.2	-16.8
- Primary deficit	32.7	-50.6	-53.2	-53.9	-52.7	-49.3	-259.7	-208.6
- Interest payments	75.2	78.2	81.1	84.3	88.0	92.3	423.9	4.2
Financing:	107.9	27.6	27.9	30.4	35.3	43.0	127.0	-22.7
- Non-bank[8]	21.0	2.5	4.6	7.1	9.8	13.2	37.2	-9.9
- Bank	62.6	0.0	0.0	0.0	0.0	0.0	0.0	-100.0
- External	24.3	25.1	23.3	23.3	25.5	29.8	127.0	4.2
Memorandum items:								
GDP (market prices)[9]	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0	10332.0	14.6
Total revenue	18.2	24.0	23.9	23.8	23.5	23.3	23.7	
Total taxes	13.4	19.8	19.7	19.4	19.1	18.8	19.3	
- Direct taxes	2.8	2.8	2.9	2.9	3.0	3.1	3.0	
. Income tax	2.6	2.6	2.7	2.8	2.9	3.0	2.8	
. Other	0.2	0.1	0.1	0.1	0.1	0.1	0.1	
- Indirect taxes	10.6	17.1	16.8	16.5	16.1	15.8	16.4	
. Import duties	4.7	5.0	4.7	4.5	4.3	4.0	4.4	
. Export duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
. Excise duties	2.6	2.6	2.6	2.6	2.6	2.6	2.6	
. Value-added tax	1.8	7.9	7.8	7.7	7.7	7.5	7.7	
. Surcharges	1.0	1.2	1.2	1.3	1.3	1.3	1.3	
. Motor vehicle tax	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
. Stamp duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
. Other	0.2	0.1	0.1	0.1	0.1	0.1	0.1	
- Non-tax revenue[4]	4.8	4.2	4.3	4.3	4.4	4.5	4.4	
Total expenditure	26.2	25.8	25.5	25.3	25.1	24.9	25.3	
- Current expenditure	19.8	19.4	19.1	18.9	18.7	18.5	18.9	

. Govt. administration@	2.3	2.3	2.4	2.4	2.5	2.5	2.4
. Defence	6.5	6.7	6.8	6.8	6.9	6.9	6.8
. Community services	0.6	0.6	0.7	0.7	0.7	0.7	0.7
. Social services	2.9	2.9	3.0	3.1	3.1	3.2	3.1
. Economic services	0.8	0.7	0.7	0.6	0.6	0.6	0.6
. Subsidies	0.5	0.6	0.6	0.6	0.5	0.5	0.6
. Interest payments	5.6	5.0	4.6	4.2	3.8	3.5	4.1
-.Domestic	4.4	3.8	3.4	3.0	2.6	2.4	2.9
-.Foreign	1.2	1.2	1.2	1.2	1.2	1.1	1.2
. Other	0.5	0.5	0.5	0.5	0.6	0.6	0.5
- Development[5]	6.4	4.8	4.6	4.4	4.2	4.0	4.3
- Development[6]	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Overall deficit[7]	8.0	1.8	1.6	1.5	1.5	1.6	1.6
- Primary deficit	2.4	-3.3	-3.0	-2.7	-2.3	-1.9	-2.5
- Interest payments	5.6	5.0	4.6	4.2	3.8	3.5	4.1
Financing:	8.0	1.8	1.6	1.5	1.5	1.6	1.6
- Non-bank[8]	1.6	0.2	0.3	0.4	0.4	0.5	0.4
- Bank	4.7	0.0	0.0	0.0	0.0	0.0	0.0
- External	1.8	1.6	1.3	1.1	1.1	1.1	1.2

Notes: Subscripts 1-9 as per Appendix 7.1.
+Sales tax on domestic production and imports.

Sources: As per Appendix 7.1 and Appendix 7.3.

Appendix 7.5 **Value-added tax revenue under scenario 2**[1] (current billion rupees)

	1990-91 HIES[2]	Projected[3] 1993-94	1994-95	1995-96	1996-97	1997-98
1. Food, beverages and tobacco	27.4	43.9	49.8	56.6	64.2	72.9
A. Food	24.0	38.5	43.7	49.7	56.4	64.0
Cereals	0.0	0.0	0.0	0.0	0.0	0.0
Baked and fried products	0.6	1.0	1.1	1.3	1.5	1.6
Pulses, split and whole	0.0	0.0	0.0	0.0	0.0	0.0
Milk and milk products	10.3	16.5	18.7	21.0	23.8	26.3
Edible oils and fats	2.9	4.7	5.3	6.0	6.8	7.5
Meat and fish	3.4	5.5	6.2	7.0	7.9	8.7
Poultry	0.9	1.5	1.7	1.9	2.1	2.3
Fruits and dry fruits	0.0	0.0	0.0	0.0	0.0	0.0
Vegetables	0.0	0.0	0.0	0.0	0.0	0.0
Condiments and spices	1.4	2.2	2.5	2.8	3.1	3.5
Sugar and sugar preparations	3.1	5.0	5.6	6.3	7.1	7.9
Ready-made food products	0.9	1.5	1.7	1.9	2.1	2.3
Miscellaneous food items	0.5	0.8	0.9	1.0	1.1	1.2
B. Tea, coffee and soft drinks	1.5	2.4	2.8	3.1	3.5	3.9
Tea	1.2	1.9	2.1	2.4	2.7	2.9
Coffee	0.0	0.0	0.0	0.0	0.0	0.0
Soft-drinks	0.3	0.6	0.6	0.7	0.8	0.9
C. Tobacco and chewing products	1.8	2.9	3.3	3.7	4.2	4.7
2. Fuel and power	2.3	3.6	4.1	4.6	5.2	5.7
Fire wood	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene oil	0.0	0.0	0.0	0.0	0.0	0.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0
Dung-cakes	0.0	0.0	0.0	0.0	0.0	0.0
Gas (piped & cylinder)	0.4	0.6	0.7	0.8	0.9	1.0
Electricity, including bulbs	1.6	2.6	2.9	3.3	3.7	4.1
Match boxes	0.1	0.2	0.2	0.2	0.2	0.3
Other fuel and power items	0.2	0.2	0.3	0.3	0.3	0.4
3. Clothing and footwear	1.8	2.8	3.2	3.6	4.1	4.5
Clothing	0.0	0.0	0.0	0.0	0.0	0.0
Footwear	1.4	2.3	2.6	2.9	3.3	3.7
Other	0.3	0.5	0.6	0.7	0.8	0.8
4. Housing and rent	1.3	2.1	2.3	2.6	3.0	3.3
House rent	0.0	0.0	0.0	0.0	0.0	0.0
Imputed house rent	0.0	0.0	0.0	0.0	0.0	0.0
Other housing expenses	1.3	2.1	2.3	2.6	3.0	3.3
5. Medical care and health	0.0	0.0	0.0	0.0	0.0	0.0
Medicine purchases	0.0	0.0	0.0	0.0	0.0	0.0
Hospital, doctor fees	0.0	0.0	0.0	0.0	0.0	0.0
Other medical costs	0.0	0.0	0.0	0.0	0.0	0.0
6. Recreational, entertainment, education and cultural services	0.3	0.4	0.5	0.6	0.6	0.7
Educational expenses	0.0	0.0	0.0	0.0	0.0	0.0
Recreational expenses	0.3	0.4	0.5	0.6	0.6	0.7
7. Transport and travelling	0.0	0.0	0.0	0.0	0.0	0.0
8. Furniture, furnishing and household equipment and household operation	1.6	2.5	2.9	3.2	3.6	4.0
Kitchen equipment	0.2	0.4	0.4	0.5	0.6	0.6
China ware	0.3	0.5	0.6	0.7	0.8	0.8
Furniture	0.4	0.6	0.7	0.8	0.9	1.0
Laundry equipment	0.1	0.1	0.2	0.2	0.2	0.2
Other	0.5	0.8	0.9	1.0	1.2	1.3
9. Durable goods	0.5	0.8	0.9	1.0	1.1	1.3
Radio, television, VCR, refrigerator ect.		0.2	0.4	0.4	0.5	0.6
Recreation equipment	0.0	0.0	0.0	0.0	0.0	0.0

Transport vehicles	0.2	0.4	0.4	0.5	0.6	0.6
10. Other non-durable	1.4	2.2	2.5	2.8	3.2	3.6
11. Jewellery	7.1	11.4	12.9	14.5	16.4	18.1
12. Miscellaneous goods and services	10.9	17.4	19.8	22.2	25.0	27.7
Personal care articles and services	3.2	5.2	5.9	6.6	7.5	8.3
Personal transport	3.2	5.2	5.9	6.6	7.4	8.2
Housing cleaning items	1.4	2.2	2.5	2.8	3.1	3.4
Other items of personal care	3.0	4.9	5.5	6.2	7.0	7.8
13. Other consumption expenditure	2.8	4.5	5.1	5.8	6.5	7.2
14. Potential value-added tax revenue	57.2	91.7	104.1	117.5	133.0	148.9
15. Value-added tax revenue @80%[4]	45.8	73.3	83.3	94.0	106.4	119.1

Notes: As per Appendix 7.2.
Source: As per Appendix 7.2.

Appendix 7.6 **Government revenue and expenditure projections under scenario 2[1] 1993-98** (current billion rupees)

	Actuals[2] 1992-93	1993-94	Projected 1994-95	1995-96	1996-97	1997-98	Total 1993-98	Gr. Rate[3] (%)
Total revenue	244.0	324.7	369.5	419.5	475.0	538.1	2126.8	17.1
Total taxes	179.9	259.1	293.6	331.5	373.1	420.0	1677.3	18.5
- Direct taxes	37.8	42.9	51.0	59.7	69.8	81.6	305.1	16.6
. Income tax	35.0	40.7	48.6	57.0	66.8	78.3	291.4	17.5
. Other	2.8	2.2	2.4	2.7	3.0	3.4	13.7	3.6
- Indirect taxes	142.1	216.2	242.6	271.8	303.3	338.3	1372.2	18.9
. Import duties	63.2	77.8	84.3	91.3	99.0	107.3	459.6	11.2
. Export duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
. Excise duties	35.5	40.4	45.7	51.8	59.8	67.7	265.4	13.7
. Value-added tax	23.7+	73.3	83.3	94.0	106.4	119.1	476.1	38.1
. Surcharges	13.1	18.3	22.2	26.8	29.4	34.5	131.2	21.5
. Motor vehicle tax	1.3	1.6	1.8	2.0	2.2	2.5	10.0	13.7
. Stamp duties	3.0	3.2	3.6	4.0	4.5	5.0	20.2	10.8
. Other	2.3	1.6	1.7	1.9	2.0	2.2	9.5	-0.6
- Non-tax revenue[4]	64.1	65.6	75.9	88.0	101.9	118.1	449.5	13.0
Total expenditure	351.9	407.6	467.1	536.0	616.3	709.8	2736.8	15.1
- Current expenditure	265.4	308.1	353.4	406.1	467.8	540.1	2075.5	15.3
. Govt. administration@	31.1	36.2	42.1	49.0	57.0	66.3	250.7	16.3
. Defence	87.8	104.8	120.6	138.8	159.7	183.8	707.7	15.9
. Community services	8.2	10.0	11.7	13.6	15.9	18.5	69.7	17.6
. Social services	38.7	44.9	52.7	62.0	72.9	85.7	318.3	17.2
. Economic services	10.2	10.9	11.8	12.7	13.7	14.9	64.0	7.9
. Subsidies	7.3	9.6	10.6	11.6	12.7	13.9	58.4	13.6
. Interest payments	75.2	84.4	95.1	107.6	122.9	141.5	551.5	13.5
- Domestic	58.7	64.9	72.1	80.7	91.5	104.9	414.1	12.3
- Foreign	16.5	19.5	23.0	26.9	31.4	36.6	137.4	17.3
. Other	6.9	7.2	8.8	10.7	13.0	15.5	55.2	17.6
- Development[5]	86.5	74.3	81.1	88.5	96.6	105.4	445.9	4.0
- Development[6]	86.5	99.5	113.7	129.9	148.5	169.7	661.2	14.4
Overall deficit[7]	107.9	82.9	97.6	116.5	141.3	171.7	610.0	9.7
- Primary deficit	32.7	-1.5	2.5	8.9	18.4	30.2	58.5	-1.6
- Interest payments	75.2	84.4	95.1	107.6	122.9	141.5	551.5	13.5
Financing:	107.9	82.9	97.6	116.5	141.3	171.7	610.0	9.7
- Non-bank[8]	21.0	23.8	30.1	39.4	53.1	71.0	217.4	27.6
- Bank	62.6	31.1	35.5	40.6	46.4	53.0	206.6	-3.3
- External	24.3	28.0	32.0	36.5	41.8	47.7	186.0	14.4
Memorandum items:								
GDP (market prices)[9]	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0	10332.0	14.6
Total revenue	18.2	20.9	20.8	20.7	20.5	20.3	20.6	
Total taxes	13.4	16.7	16.5	16.3	16.1	15.8	16.2	
- Direct taxes	2.8	2.8	2.9	2.9	3.0	3.1	3.0	
. Income tax	2.6	2.6	2.7	2.8	2.9	3.0	2.8	
. Other	0.2	0.1	0.1	0.1	0.1	0.1	0.1	
- Indirect taxes	10.6	13.9	13.7	13.4	13.1	12.8	13.3	
. Import duties	4.7	5.0	4.7	4.5	4.3	4.0	4.4	
. Export duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
. Excise duties	2.6	2.6	2.6	2.6	2.6	2.6	2.6	
. Value-added tax	1.8	4.7	4.7	4.6	4.6	4.5	4.6	
. Surcharges	1.0	1.2	1.2	1.3	1.3	1.3	1.3	
. Motor vehicle tax	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

. Stamp duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2
. Other	0.2	0.1	0.1	0.1	0.1	0.1	0.1
- Non-tax revenue[4]	4.8	4.2	4.3	4.3	4.4	4.5	4.4
Total expenditure	26.2	26.2	26.3	26.4	26.6	26.8	26.5
- Current expenditure	19.8	19.8	19.9	20.0	20.2	20.4	20.1
. Govt: administration@	2.3	2.3	2.4	2.4	2.5	2.5	2.4
. Defence	6.5	6.7	6.8	6.8	6.9	6.9	6.8
. Community services	0.6	0.6	0.7	0.7	0.7	0.7	0.7
. Social services	2.9	2.9	3.0	3.1	3.1	3.2	3.1
. Economic services	0.8	0.7	0.7	0.6	0.6	0.6	0.6
. Subsidies	0.5	0.6	0.6	0.6	0.5	0.5	0.6
. Interest payments	5.6	5.4	5.4	5.3	5.3	5.3	5.3
- Domestic	4.4	4.2	4.1	4.0	3.9	4.0	4.0
- Foreign	1.2	1.3	1.3	1.3	1.4	1.4	1.3
. Other	0.5	0.5	0.5	0.5	0.6	0.6	0.5
- Development[5]	6.4	4.8	4.6	4.4	4.2	4.0	4.0
- Development[6]	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Overall deficit[7]	8.0	5.3	5.5	5.7	6.1	6.5	5.9
- Primary deficit	2.4	-0.1	0.1	0.4	0.8	1.1	0.6
- Interest payments	5.6	5.4	5.4	5.3	5.3	5.3	5.3
Financing:	8.0	5.3	5.5	5.7	6.1	6.4	5.9
- Non-bank[8]	1.5	1.5	1.7	1.9	2.3	2.6	2.1
- Bank	4.7	2.0	2.0	2.0	2.0	2.0	2.0
- External	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Notes: Subscripts 1-9 as per Appendix 7.1.
+Sales tax on domestic production and imports.

Sources: As per Appendix 7.1 and Appendix 7.5.

Appendix 7.7 **Value-added tax revenue under scenario 3**[1] (current billion rupees)

	19901-91 HIES[2]	Projected[3] 1993-94	1994-95	1995-96	1996-97	1997-98
1. Food, beverages and tobacco	17.6	28.1	31.9	36.3	41.2	46.7
A. Food	10.9	17.4	19.8	22.4	25.5	28.9
Cereals	1.1	1.8	2.0	2.3	2.5	2.8
Baked and fried products	0.1	0.1	0.2	0.2	0.2	0.2
Pulses, split and whole	0.2	0.3	0.3	0.4	0.4	0.5
Milk and milk products	1.4	2.2	2.5	2.8	3.2	3.5
Edible oils and fats	0.4	0.6	0.7	0.8	0.9	1.0
Meat and fish	3.4	5.5	6.2	7.0	7.9	8.7
Poultry	0.9	1.5	1.7	1.9	2.1	2.3
Fruits and dry fruits	0.2	0.4	0.4	0.5	0.5	0.6
Vegetables	0.0	0.0	0.0	0.0	0.0	0.0
Condiments and spices	1.4	2.2	2.5	2.8	3.1	3.5
Sugar and sugar preparations	0.4	0.7	0.7	0.8	1.0	1.0
Ready-made food products	0.9	1.5	1.7	1.9	2.1	2.3
Miscellaneous food items	0.5	0.8	0.9	1.0	1.1	1.2
B. Tea, coffee and soft drinks	3.0	4.9	5.5	6.2	7.0	7.7
Tea	2.3	3.7	4.2	4.7	5.3	5.9
Coffee	0.0	0.0	0.1	0.1	0.1	0.1
Soft-drinks	0.7	1.1	1.3	1.4	1.6	1.8
C. Tobacco and chewing products	3.7	5.9	6.7	7.5	8.4	9.3
2. Fuel and power	2.2	3.6	4.1	4.6	5.2	5.7
Fire wood	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene oil	0.1	0.1	0.1	0.2	0.2	0.2
Coal	0.0	0.0	0.0	0.0	0.0	0.0
Dung-cakes	0.0	0.0	0.0	0.0	0.0	0.0
Gas (piped & cylinder)	0.4	0.6	0.7	0.8	0.9	1.0
Electricity, including bulbs	1.6	2.6	2.9	3.3	3.7	4.1
Match boxes	0.0	0.0	0.0	0.0	0.0	0.0
Other fuel and power items	0.2	0.2	0.3	0.3	0.3	0.4
3. Clothing and footwear	2.5	3.9	4.5	5.0	5.7	6.3
Clothing	0.7	1.1	1.2	1.4	1.6	1.7
Footwear	1.4	2.3	2.6	2.9	3.3	3.7
Other	0.3	0.5	0.6	0.7	0.8	0.8
4. Housing and rent	0.2	0.3	0.3	0.4	0.4	0.4
House rent	0.0	0.0	0.0	0.0	0.0	0.0
Imputed house rent	0.0	0.0	0.0	0.0	0.0	0.0
Other housing expenses	0.2	0.3	0.3	0.4	0.4	0.4
5. Medical care and health	0.0	0.0	0.0	0.0	0.0	0.0
Medicine purchases	0.0	0.0	0.0	0.0	0.0	0.0
Hospital, doctor fees	0.0	0.0	0.0	0.0	0.0	0.0
Other medical costs	0.0	0.0	0.0	0.0	0.0	0.0
6. Recreational, entertainment, education and cultural services	0.3	0.4	0.5	0.6	0.6	0.7
Educational expenses	0.0	0.0	0.0	0.0	0.0	0.0
Recreational expenses	0.3	0.4	0.5	0.6	0.6	0.7
7. Transport and travelling	0.0	0.0	0.0	0.0	0.0	0.0
8. Furniture, furnishing and household equipment and household operation	2.1	3.4	3.9	4.4	4.9	5.5
Kitchen equipment	0.5	0.8	0.9	1.0	1.1	1.2
China ware	0.7	1.1	1.2	1.3	1.5	1.7
Furniture	0.4	0.6	0.7	0.8	0.9	1.0

Laundry equipment	0.1	0.1	0.2	0.2	0.2	0.2
Other	0.5	0.8	0.9	1.0	1.2	1.3
9. Durable goods	1.0	1.6	1.8	2.0	2.3	2.5
Radio, television, VCR, refrigerator	0.5	0.8	0.9	1.0	1.1	1.2
Recreation equipment	0.0	0.0	0.1	0.1	0.1	0.1
Transport vehicles	0.5	0.8	0.9	1.0	1.1	1.2
10. Other non-durable	1.4	2.2	2.5	2.8	3.2	3.6
11. Jewellery	14.2	22.7	25.8	29.0	32.7	36.2
12. Miscellaneous goods and services	14.1	22.6	25.6	28.8	32.5	35.9
Personal care articles and services	3.2	5.2	5.9	6.6	7.5	8.3
Personal transport	6.5	10.3	11.7	13.2	14.9	16.4
Housing cleaning items	1.4	2.2	2.5	2.8	3.1	3.4
Other items of personal care	3.0	4.9	5.5	6.2	7.0	7.8
13. Other consumption expenditure	2.8	4.5	5.1	5.8	6.5	7.2
14. Potential value-added tax revenue	58.3	93.4	106.1	119.5	135.2	150.6
15. Value-added tax revenue @80%	46.7	74.8	84.9	95.6	108.1	120.5

Notes: As per Appendix 7.3.
Source: As per Appendix 7.3.

Appendix 7.8 **Government revenue and expenditure projections under scenario 3[1] 1993-98** (current billion rupees)

	Actual[2] 1992-93	1993-94	1994-95	Projected 1995-96	1996-97	1997-98	Total 1993-98	Gr. Rate[3] (%)
Total revenue	244.0	326.2	371.1	421.1	476.7	539.5	2134.6	17.2
Total taxes	179.9	260.6	295.2	333.1	374.8	421.4	1685.1	18.6
- Direct taxes	37.8	42.9	51.0	59.7	69.8	81.6	305.1	16.6
. Income tax	35.0	40.7	48.6	57.0	66.8	78.3	291.4	17.5
. Other	2.8	2.2	2.4	2.7	3.0	3.4	13.7	3.6
- Indirect taxes	142.1	217.7	244.2	273.4	305.0	339.7	1380.0	19.0
. Import duties	63.2	77.8	84.3	91.3	99.0	107.3	459.6	11.2
. Export duties	0.0	4.7	5.2	5.7	6.3	7.0	28.8	0.0
. Excise duties	35.5	40.4	45.7	51.8	59.8	67.7	265.4	13.7
. Value-added tax	23.7+	74.8	84.9	95.6	108.1	120.5	483.9	38.4
. Surcharges	13.1	18.3	22.2	26.8	29.4	34.5	131.2	21.5
. Motor vehicle tax	1.3	1.6	1.8	2.0	2.2	2.5	10.0	13.7
. Stamp duties	3.0	3.2	3.6	4.0	4.5	5.0	20.2	10.8
. Other	2.3	1.6	1.7	1.9	2.0	2.2	9.5	-0.6
- Non-tax revenue[4]	64.1	65.6	75.9	88.0	101.9	118.1	449.5	13.0
Total expenditure	351.9	407.4	466.7	535.3	615.3	708.5	2733.2	15.0
- Current expenditure	265.4	307.9	353.0	405.4	466.8	538.8	2071.9	15.2
. Govt. administration@	31.1	36.2	42.1	49.0	57.0	66.3	250.7	16.3
. Defence	87.8	104.8	120.6	138.8	159.7	183.8	707.7	15.9
. Community services	8.2	10.0	11.7	13.6	15.9	18.5	69.7	17.6
. Social services	38.7	44.9	52.7	62.0	72.9	85.7	318.3	17.2
. Economic services	10.2	10.9	11.8	12.7	13.7	14.9	64.0	7.9
. Subsidies	7.3	9.6	10.6	11.6	12.7	13.9	58.4	13.6
. Interest payments	75.2	84.2	94.7	106.9	121.9	140.2	547.9	13.3
- Domestic	58.7	64.7	71.7	80.0	90.5	103.6	410.5	12.0
- Foreign	16.5	19.5	23.0	26.9	31.4	36.6	137.4	17.3
. Other	6.9	7.2	8.8	10.7	13.0	15.5	55.2	17.6
- Development[5]	86.5	74.3	81.1	88.5	96.6	105.4	445.9	4.0
- Development[6]	86.5	99.5	113.7	129.9	148.5	169.7	661.2	14.4
Overall deficit[7]	107.9	81.2	95.6	114.2	138.6	169.0	598.6	9.4
- Primary deficit	32.7	-3.1	0.9	7.3	16.7	28.8	50.7	-2.5
- Interest payments	75.2	84.2	94.7	106.9	121.9	140.2	547.9	13.3
Financing:	107.9	81.2	95.6	114.2	138.6	169.0	598.6	9.4
- Non-bank[8]	21.0	22.1	28.1	37.1	50.4	68.3	206.0	26.6
- Bank	62.6	31.1	35.5	40.6	46.4	53.0	206.6	-3.3
- External	24.3	28.0	32.0	36.5	41.8	47.7	186.0	14.4
Memorandum items:								
GDP (market prices)[9]	1342.0	1555.0	1776.0	2030.0	2320.0	2651.0	10332.0	14.6
Total revenue	18.2	21.0	20.9	20.7	20.5	20.4	20.7	
Total taxes	13.4	16.8	16.6	16.4	16.2	15.9	16.3	
- Direct taxes	2.8	2.8	2.9	2.9	3.0	3.1	3.0	
. Income tax	2.6	2.6	2.7	2.8	2.9	3.0	2.8	
. Other	0.2	0.1	0.1	0.1	0.1	0.1	0.1	
- Indirect taxes	10.6	14.0	13.8	13.5	13.1	12.8	13.4	
. Import duties	4.7	5.0	4.7	4.5	4.3	4.0	4.4	
. Export duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
. Excise duties	2.6	2.6	2.6	2.6	2.6	2.6	2.6	
. Value-added tax	1.8	4.8	4.8	4.7	4.7	4.5	4.7	
. Surcharges	1.0	1.2	1.2	1.3	1.3	1.3	1.3	
. Motor vehicle tax	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

. Stamp duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2
. Other	0.2	0.1	0.1	0.1	0.1	0.1	0.1
- Non-tax revenue[5]	4.8	4.2	4.3	4.3	4.4	4.5	4.4
Total expenditure	26.2	26.2	26.3	26.4	26.5	26.7	26.5
- Current expenditure	19.8	19.8	19.9	20.0	20.1	20.3	20.1
. Govt. administration	2.3	2.3	2.4	2.4	2.5	2.5	2.4
. Defence	6.5	6.7	6.8	6.8	6.9	6.9	6.8
. Community services	0.6	0.6	0.7	0.7	0.7	0.7	0.7
. Social services	2.9	2.9	3.0	3.1	3.1	3.2	3.1
. Economic services	0.8	0.7	0.7	0.6	0.6	0.6	0.6
. Subsidies	0.5	0.6	0.6	0.6	0.5	0.5	0.6
. Interest payments	5.6	5.4	5.3	5.3	5.3	5.3	5.3
-.Domestic	4.4	4.2	4.0	3.9	3.9	3.9	4.0
-. Foreign	1.2	1.3	1.3	1.3	1.4	1.4	1.3
. Other	0.5	0.7	0.7	0.7	0.7	0.7	0.7
- Development[5]	6.4	4.8	4.6	4.4	4.2	4.0	4.3
- Development[6]	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Overall deficit[7]	8.0	5.2	5.4	5.6	6.0	6.4	5.8
- Primary deficit	2.4	-0.2	0.1	0.4	0.7	1.1	0.5
- Interest payments	5.6	5.4	5.3	5.3	5.3	5.3	5.3
Financing:	8.0	5.2	5.4	5.6	6.0	6.4	5.8
- Non-bank[8]	1.6	1.4	1.6	1.8	2.2	2.6	2.0
- Bank	4.7	2.0	2.0	2.0	2.0	2.0	2.0
- External	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Notes: Subscripts 1-9 as per Appendix 7.1.
+Sales tax on domestic production and imports.

Sources: Appendix 2.3 and Appendix 7.6.

Appendix 8.1 **Distribution of monthly household income and expenditure by income groups** (Pakistan rupees)

		Monthly Income Groups (Rupees)										
	All Groups s	Up to 1000	1001 to 1500	1501 to 2000	2001 to 2500	2501 to 3000	3001 to 3500	3501 to 4000	4001 to 5000	5001 to 6000	6001 to 7000	7001 and above
Number of sample households	6393	542	886	1016	866	643	527	416	507	323	207	460
Average monthly household income 1993-94[1]												
- All Pakistan	4688	997	1867	2582	3316	4065	4803	5554	6604	8029	8093	19828
- Urban	5477	758	1903	2619	3338	4112	4818	5549	5549	8015	9549	18306
- Rural	4337	1049	1860	2567	3306	4035	4796	5555	6582	8038	9592	21120
Average monthly household income 1993-94 (scenario 1)												
- All Pakistan	4011	667	1513	2126	2757	3408	4046	4726	5682	6988	6851	17958
- Urban	4629	343	1500	2138	2721	3401	3896	4613	4525	6808	8238	15565
- Rural	3673	729	1479	2088	2715	3339	3987	4576	5656	7007	8264	19279
Average monthly household income 1993-94 (scenario 2)												
- All Pakistan	4308	819	1684	2340	3013	3698	4386	5086	6062	7422	7380	18700
- Urban	4992	526	1692	2362	3001	3714	4284	5016	4960	7311	8801	16602
- Rural	3921	870	1641	2292	2954	3602	4294	4885	5980	7370	8711	19829
Average monthly household income 1993-94 (scenario 3)												
- All Pakistan	4272	854	1707	2360	3020	3697	4324	4887	6070	7389	7268	18294
- Urban	4993	548	1710	2389	3022	3742	4259	5006	4975	7313	8797	16341
- Rural	690	512	498	543	576	653	702	877	792	861	1130	1297
Average monthly household consumption expenditure 1993-94[1]												
- All Pakistan	4523	2205	2367	3048	3733	4381	5056	5526	6161	6954	8300	12566

- Urban	5670	2768	2688	3213	4120	4748	6162	6259	6847	8064	8768	18352
- Rural	4443	2135	2544	3201	3943	4646	5397	6532	6184	6885	8858	12390
Scenario 1												
Average monthly household consumption expenditure 1993-94												
- All Pakistan	3847	1874	2012	2592	3174	3725	4299	4699	5239	5913	7058	10696
- Urban	4822	2353	2285	2732	3503	4037	5239	5323	5823	6858	7457	15611
- Rural	3778	1815	2163	2722	3352	3949	4589	5553	5257	5853	7530	10550
Scenario 2												
Average monthly household consumption expenditure 1993-94												
- All Pakistan	4143	2026	2183	2806	3430	4014	4639	5058	5618	6347	7587	11438
- Urban	5186	2537	2477	2956	3783	4350	5628	5726	6258	7361	8020	16648
- Rural	4027	1956	2324	2926	3591	4212	4895	5862	5582	6217	7976	11100
Scenario 3												
Average monthly household consumption expenditure 1993-94												
- All Pakistan	4107	2062	2207	2826	3437	4014	4577	4860	5627	6314	7475	11032
- Urban	5187	2559	2495	2983	3804	4377	5602	5716	6273	7363	8016	16387
- Rural	4029	1990	2336	2956	3615	4232	4883	5754	5625	6240	7881	10913
Sales tax paid by households[2]												
- All Pakistan	1.85	0.43	0.43	0.71	0.57	0.71	1.14	1.57	1.71	2.14	2.71	14.83
- Urban	2.42	0.43	0.43	0.71	0.71	1.14	1.71	2.71	2.85	3.42	4.56	18.11
- Rural	1.71	0.43	0.43	0.57	0.43	0.43	0.86	0.86	1.00	1.28	1.14	10.98

Notes: [1]calculated on the basis of Household Integrated Economic Survey 1990-91 and Eighth Five-Year Plan (1993-98)

[2]calculated on the basis of total tax burden per household reported by the Household Integrated Economic Survey 1990-91 (Table 33, page 154-55) and sales tax share has been calculated from 1993-94 sales tax estimates as reported by the Pakistan Economic Survey 1993-94

Sources: Appendix 6.5 and Appendix 7.3

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Appendix 9.1 **Percent distribution of general public: by type of monthly income and expenditure on food and other household expenditure items and by province**

	Overall	Punjab	Sindh	NWFP[1]	Baluchistan
Total respondents	92	29	27	23	13
<u>Percent</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
1. Monthly income (Pakistan rupees)					
- Less than 1000	4	3	-	-	23
- 1001 - 5000	40	35	59	39	15
- 5001 - 10000	37	45	22	48	31
-10001 & above	8	7	4	9	15
- No Response	11	10	15	4	16
2. Expenditure on food[2]					
- Less than 25	6	3	7	4	8
- 25 - 39	13	14	15	9	15
- 40 - 54	41	38	44	52	46
- 55 - 64	23	24	22	31	23
- Above 64	17	21	11	4	8
3. Expenditure on house rent[2]					
- Less than 10	51	52	48	39	77
- 11 - 20	37	38	26	57	23
- Above 20	12	10	26	4	-
4. Expenditure on utilities[2]					
- Less than 10	42	41	30	57	46
- 11 - 20	49	52	59	35	46
- Above 20	9	7	11	9	8
5. Expenditure on transport[2]					
- Less than 10	48	48	37	61	46
- 11 - 20	47	45	56	35	54
- Above 20	5	7	7	4	-
6. Expenditure on children's education[2]					
- Less than 10	46	48	44	39	54
- 11 - 20	49	45	48	57	46
- Above 20	5	7	7	4	-
7. Expenditure on other[3] items[2]					
- Less than 10	53	55	63	52	31
- 11 - 20	34	28	30	35	54
- Above 20	13	17	7	13	15

Notes: [1]North West Frontier Province.
[2]Percent of total monthly income.
[3]Includes expenditure on electricity, gas, kerosene oil, coal, wood and similar nature items.

Source: Field Survey undertaken during January-April, 1994.

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